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ORIGINAL ARTICLES

AN UNUSUAL RETROPERITONEAL TUMOR IN THE MESOCOLON SIMULATING IMPACTED FIBROID OF THE UTERUS.*

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My chief reason for reporting the following case is to accentuate the statement made by the late Dr. Goodell, that a positive diagnosis of intra-abdominal disease is best made after the abdomen is opened.

Another reason is I wish to express the belief that the gynecologist of today should be able to cope with all intra-abdominal troubles whenever found in the course of his efforts to relieve a patient of a seemingly gynecological disease.

While in the great majority of cases the average gynecologist is able to diagnosticate purely gynecic disease by the employment of well known measures, he still is frequently confronted with cases in which after every known method has been used he is somewhat chagrined to find an entirely different condition present from what his educated senses have told him.

It is particularly true when he encounters post-peritoneal growths. This is true on account of the generally rather loose attachment that these growths have to fixed and unyielding structures, as the spinal column, the bony pelvis and in a comparative degree the heavy muscles of the back and the loins. Here we have an abundance of connective tissue that permits a mobility not found elsewhere in the body.

It is no wonder then that these post-peritoneal tumors will encroach upon and even displace organs that are naturally remotely located.

The spleen, the stomach, kidney and even the pancreas have been found in the pelvis.

With these few remarks I will now relate the following case. Mrs. J. S. B., age 48, married, mother of three children, no miscarriages presented herself for examination.

*Read at the annual meeting, Jefferson City, May, 1906.

The subjective symptoms were as follows: Pain in the gastric region radiating into the left thigh; constant nausea accompanied by vomiting which sometimes gave temporary relief. This had lasted in a more or less degree for eleven years. In spite of this most distressing symptom she was fairly well nourished. During this long period of illness she suffered with a heavy dragging sensation in the abdomen and back.

On the exposing the abdomen, with the patient in the recumbent posture, abdominal palpation was made. This revealed a fairly well defined mass at the brim of the pelvis. Bimanual palpation revealed a somewhat fixed mass in the pelvis and a crowding down of the pelvic viscera. This mass could not be dislodged from the pelvis by pressure exercised from below in the proper axes of the pelvis.

Taking into consideration the history of the case and the symptoms above expressed a diagnosis, somewhat tentative, was made of an intramural fibroid impacted in the pelvis. On the following day, Jan. 31st, 1906, the abdomen was opened.

On inspection, a rather flat mass was seen lying at the brim of the pelvis closing off the pelvic cavity from the general abdominal cavity. Along the brim of the pelvis, anteriorly could be seen a bowel, which on careful examination proved to be a part of the transverse colon. This bowel encircled the anterior border of the tumor. It was only with some difficulty that it could be dislodged as its posterior border was under the promontory of the sacrum and its anterior border was wedged in behind the pubic bone. The whole mass was crowding the small intestines into the pelvis. Superimposed on the tumor was a coil of colon from each side and above this again was the stomach. After a careful inspection it proved to be postperitoneal in origin and lay between the layers of the transverse meso-colon.

The insinuation of the fingers at a point corresponding to the sacro-iliac synchondrosis between the tumor and the side of the pelvis, and with traction made upwards, the mass was delivered into the abdomen. An effort was made to turn it back upon itself which was futile and it was decided to attack it from above.

An incision was accordingly made at right angles to the bowel, care being taken to avoid blood vessels. The fibrous capsule was with some effort peeled off and the tumor removed. The inferior surface on the right side was adherent to the right ureter, which passed between a pair of the lobules of the tumor. No vessels required any special ligation and the sac was closed with a running suture of catgut.

Before closing the abdomen an inspection of the liver and gall bladder was made. Quite a number of small yellow nodules were seen scattered over the free superior surface of the liver and a few indurated glands along the longitudinal fissure. The gall bladder was free from stones.

FIG. 1. Showing the cells flatwise. The myoglia fibrils are seen at the periphery of the cells. Stained with acid fuchsin and orange G. phosphomyolibdic acid.

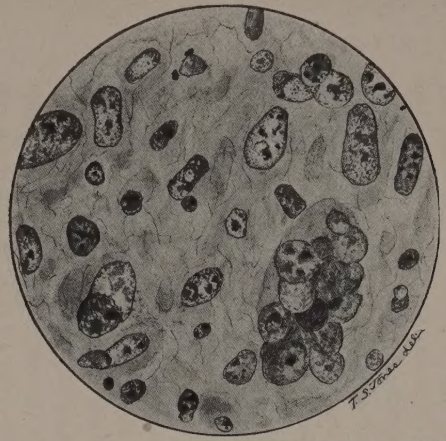

FIG. 2. Cross section showing large multinucleated cells. Stained with hematoxylin-eosin.

FIG. 4. (1-5 Original Size.) Cut Surface of Tumor.

On account of the yellow masses scattered over the liver it was presumed that we had to deal with a malignant growth that was certain in time to kill the patient.

The patient made an uninterrupted recovery and left the hospital within a month, feeling well. One month afterward a letter received stated that the patient had improved in health, but a later letter states that the vomiting was again pronounced.

The literature of the subject of retroperitoneal tumors is rather scant. Hahn, Ziegler, Delafield and Pruden scarcely mention the matter. Klebs says they are rare and devotes a very limited space to their consideration.

In a report of fifty-seven cases by Harris, from 1830 to 1897, there were 33 in which either an incorrect diagnosis or no diagnosis was made; indefinite 8; ovarian tumors 3; spleen displaced, chirrhosis of liver, hydatid of liver, intestinal strangulation, stricture of rectum, etc., 6 diagnosticated correctly. The mortality has been large—deaths 40; no data obtained, 7; recovered, 10. This report of Harris is collected from the reports of Hyden, Pean, McRiddle, Bemis, and Brushini.

The following report of the pathologist, Dr. Ralph L. Thompson, is of interest. I wish to thank Dr. Thompson for his painstaking and thorough analysis of the subject matter of this contribution to medical literature.

PATHOLOGIC REPORT.

The following is the result of the pathologic examination of the specimen submitted by Dr. Dorsett.

Gross description: Specimen consists of a firm, lobulated mass, 16x10x8 cm. in diameter with several smaller detached masses, the largest of which is 4x6 cm. in diameter. The masses are grayish-white in color. The surface is smooth and shows many elevated nodules separated by depressed areas.

On section the tumor is grayish-white in color, firm and in great part trabeculated. There are occasional soft, flesh-like masses of pearl gray color, and homogeneous. There are also small yellow opaque areas throughout and occasional soft, red to red brown foci, the latter not over 2 cm. in diameter.

Microscopic description: A variety of pictures are found in the tumor, depending on the part of the growth from which the section is taken. The greater part of the mass (the firm gray areas) consists of bundles of smooth muscle fibres in a connective tissue stroma. The muscle bundles are seen running horizontally and obliquely and also appear in cross section. The nuclei of the cells are prominent. They are rod shaped in horizontal section; oval in cross section. They vary somewhat in size. Some are long and slender others shorter and slightly oval.

The connective tissue stroma which appears between the muscle bundles varies in amount and is fairly rich in nuclei. In places are areas of hyaline degeneration giving a homogeneous appearance to the stroma.

Blood vessels are fairly numerous. In many parts of the section fairly large vessels with little development of the vessel walls are seen, filled with red blood corpuscles. In this part of the growth there is little that differs from sections of ordinary leiomyoma, such as are best seen in the so-called fibromyomata of the uterus.

Passing to the softer flesh-like parts of the tumor, quite a different picture is encountered. While there is a suggestion of the structure previously described, scarcely any stroma can be made out. Everywhere throughout the section are large cells, some round, many spindle shaped, with large irregular nuclei. Many mitotic figures are seen. Some cells are seen with numerous closely packed nuclei. Between the cells there is a varying amount of fibrillar structure which takes the ordinary stains for connective tissue. In addition to the ordinary intercellular fibres there can be seen in appropriately stained sections another set of fibrils which stain differentially. These fibres lie in, or on, the periphery of the cell protoplasm and the ends of fibrils extend some distance beyond the limits of the cell. In places these large cells can be seen invading the myomatous tissue previously described. One section shows what is apparently bits of hyaline cartilage. The soft red brown areas in the tumor show hemorrhage and various forms of degeneration. In places are large masses of fibrin. Considerable pigment is seen in these areas both within the cells and extracellular. Focal areas show masses of hyaline droplets of varying size. In the partly degenerated areas are seen some of the largest, most irregularly nucleated cells and many mitotic figures.

Borst (*Die Lehre von den Geschwuelsten*, Bd. I. p. 221) discusses this question and calls attention to the difficulties in determining between undifferentiated muscle cells and embryonic connective tissue cells. According to Borst, if the undifferentiated cells are derived from smooth muscle cells the growth should be designated leiomyoma sarcomatoides.

This tumor corresponds in all its essential details to a growth described by Mallory as malignant leiomyoma (*Journal of Medical Research*, Vol. VIII, No. 2, 1905). Specimens from this tumor submitted to Dr. Mallory were diagnosed by him as malignant leiomyoma.

It has long been a disputed question among pathologists as to whether or not a sarcoma could arise from smooth muscle cells. Some observers claim to have observed such a transition. Others prefer to believe that when such growths arose the origin was from the connective tissue cells of the stroma. Such tumors were designated then as

large spindle cell or mixed cell sarcoma, or as a mixed tumor (myosarcoma), according to the interpretation of the origin.

The recent work of Mallory (*l. c.*) on tumor classification, based particularly on the more careful study of the intercellular substances produced by certain cells, seems to make possible the establishment of the origin of such tumors as the one previously described as undoubtedly from smooth muscle cells.

Smooth muscle cells possess certain well known fibrils, the "binnen fibrillen" of Heidenhain and the "myoglia fibrils" of Benda. It is the characteristic appearance of these latter fibrils in many of the large cells in the fleshy part of the growth previously described that suggests their close relationship with ordinary smooth muscle cells. Unfortunately tissue from this tumor was not fixed until several hours after its removal and therefore these myoglia fibrils are not as well preserved as they might otherwise have been. These fibrils are extremely sensitive to post mortem change and are best demonstrated in tissue fixed immediately after excision while it is still life warm. However, in certain parts of the growth these characteristic myoglia fibres were seen lying at the cell periphery and extending indefinitely beyond the limits of the cell. It is important to determine whether or not these tumor cells tend to differentiate themselves into smooth cells. While I was not able to definitely settle this point to my own satisfaction there is much in the section to suggest such a transition.

That the exact determination of the nature of these cells is not always an easy task, even with an added knowledge of fibre production is evident when we consider not only the similarity of the cells but also the close similarity of fibrils produced by muscle and connective tissue cells. The differentiation of fibrils can not rest on staining peculiarities alone. Fibroglia fibrils, the delicate fibrils produced by connective tissue cells in tumors and inflammatory tissue which Mallory has described, stain by the same methods as do myoglia fibrils. These fibroglia fibrils, however, are much more delicate than are the myoglia fibrils. In connective tissue growths moreover, the fibre production seems to occur in direct ratio to rapidity of growth. So that the more quickly the tumor grows the more numerous are the fibrils. In myomata as Mallory has shown the fibre production is more irregular and the myoglia fibrils do not diminish but rather increase perhaps with the increased production of intercellular substance.

We have then a tumor in which the cells are larger than spindle cell sarcoma cells, irregular, with fairly well defined protoplasm. The intercellular connective tissue fibrils are not distributed evenly about the cells as they are in sarcoma, but occur irregularly. In addition the cells produce coarse peripheral fibrils which are characteristic of smooth muscle cells and which differ in their morphology from the more delicate (fibroglia) fibrils produced by the cells of connective tis-

sue origin. All of these points seem to show that the tumor is derived from smooth muscle rather than from connective tissue.

It is necessary to designate the growth a malignant leiomyoma, in view of its origin, rather than to call it a mixed sarcoma or myosarcoma. There is no objection to the term proposed by Borst, namely, leiomyoma sarcomatoides.

The malignancy of these growths appears to be a variable quantity. Some grow with great rapidity but do not seem to give rise to metastases or invade surrounding tissue up to the time of their removal. Others of slower growth sometimes give rise to metastases. In this case the growth was comparatively slow and the patient showed apparently good recovery after operation. However, numerous small gray nodules were noted in the liver surface at the time of removal which suggested metastases. Unfortunately none of these nodules were taken for microscopic examination.

Tumors of the mesentary are usually benign and include practically the whole group of simple histoid growths as well as mixed tumors and teratomata. Cysts of the mesentery are much more common than solid growths. I have found no instance in which malignant leiomyoma has been reported in this situation, although no doubt some of the tumors of supposed connective tissue origin that have been reported as "large spindle cell sarcoma" or "mixed cell sarcoma" were really identical with the growth here described.

The origin of these growths may perhaps be best accounted for as developing from fetal inclusions of smooth muscle tissue. Smooth muscle is found in the wall of the blood vessels that traverse the mesentery as well as in the walls of the intestine. Hyperplasia of this tissue might furnish a starting point for the growth.

DISCUSSION.

Dr. C. G. Geiger, St. Joseph: We have very little literature on the subject and I have seen only one case, almost identical with Dr. Dorsett's case. My patient did not have the symptoms given by Dr. Dorsett in regard to vomiting, but suffered very severely with constipation. A diagnosis was made of interstitial fibroid. The uterus was almost immovable, and was removed. The patient died two years afterward from supposed malignant tumor or sarcoma. It is almost impossible to make a positive diagnosis in this class of cases without opening the abdomen and Martin was about correct when he said, "I have ceased to guess what is on the inside of the belly." We can always make a more positive diagnosis when we expose the tumor. In my case there was no examination by the microscope but from the termination I thought it was a malignant condition similar to the case reported by Dr. Dorsett. The patient said she had felt a growth for several years about the location we found when we opened the ab-

domen. She was about fifty years of age and had had several children. In Senn's book on tumors there is a small article on tumors posterior to the peritoneum; I believe there were in all only about sixty or seventy cases on record. We find most of the tumors of this character in women of middle age, or at least in women who have borne children. All the cases on record were in women who had borne children.

Dr. A. F. Hertzler, Kansas City: The transformation of myomas into sarcomas is denied by practically all practitioners and the majority of pathologists. But so good a man as Dr. Pfannenstiel said he has seen a case. How highly developed tissue like muscle could degenerate into a tumor of a connective tissue character is a biologic question which is pretty hard to answer. From a practical standpoint, to present the practitioner's side, I would question seriously whether in time we will not have to list these tumors among sarcomas, and not class them as malignant myomas.

Dr. Dorsett, in closing: There are one or two symptoms that I did not detail in the paper. The small bowel, almost the entire length of the ileum, was crowded into the pelvis, or below the tumor, yet there was no history of constipation. The ureter passed through a niche in the tumor yet the function of the kidney was not intereferred with so far as we could tell from the history of the case given us by the patient and her friends after the operation. The ureter was very much dilated in running up to the kidney and for a distance of about four inches it was with difficulty that I recognized the structure. My first inclination was to assume that the growth was in the mesentery of the small bowel, but I finally recognized the connection with the colon. The patient recovered from the operation and went home. From latest advices I imagine she will not live long. I may be criticised for operating, but I will say that several months of usefulness and happiness were added to this patient's life, and in view of this fact I think the operation was fully justified.

THE PRESENT STATUS OF PSYCHOTHERAPY.*

BY DORA GREENE-WILSON, M. D., KANSAS CITY, MO.

No physician can be acquitted in the court of his own conscience, who from prejudice voluntarily closes his eyes and refuses to investigate any means that promises to increase his power to alleviate human suffering. The well equipped physician leaves no stone unturned in his efforts to prepare himself thoroughly for his work, but investigates all therapeutic methods and makes use of such knowledge as he is able to obtain.

Valuable methods of treatment sometimes have their origin with the laity, the ignorant, or the charlatans, who make use of them, not comprehending their significance, but noting results. These methods may, in the light of scientific research and investigation, evolve principles of therapy, invaluable when placed in their proper relation in the armamentarium of the physician. It is thus that mind-cure, or in scientific nomenclature, psychotherapy, seems to be finding a place in orthodox medicine.

We cannot successfully deny the fact, so powerfully forced upon us during the last few years, that in the hands of christian scientists, mental-curists, Apostolic and magnetic-healers and other charlatans and quacks, many genuine cures have taken place. Perhaps not a few in which drug treatment has failed at the hands of several reputable physicians.

In the light of this mortifying fact would we seek an explanation, and casting aside all prejudice, earnestly search for the source of healing power.

We of the medical profession boast of being scientific and certainly with reason; but we have long centered our interest too much on the organic and too little on the psychic side of the human being. One writer says that "for years the only difference between the veterinarian's art and that of the physician, was that of clientele!"

It is so much easier to get at the organic, which seems more tangible, if not more practicable. But when we can demonstrate that cures wrought by psychotherapy can be accounted for on scientific principles and natural laws, and that they are not the vain imaginings of vagary, fanaticism, ignorance and deception, then would we wrest from the quack the weapon of his successful combat with disease, and elevate it to its proper place in legitimate medicine.

We find ourselves face to face with these questions: How much influence, if any, has the mind and mental representation in causing or harboring functional or organic disease? If it is a therapeutic meas-

*Read at the annual meeting, Jefferson City, May, 1906.

ure, to what class of disease is it adapted? How is it to be applied? What scientific explanation of its action have we? In total, what is the present status of development of psychotherapy?

Let us in retrospect, hastily pass over its history. We find that psychotherapy is really as old as the healing art. Traces are found in ancient mythology and we know it was used by the Egyptians and Hellenes. Whether expressed in the wild incantations of the tribes of Africa, who believe pain is the evidence of possession of evil spirits, who can thus be exorcised, or the modern application of suggestive therapeutics on a scientific basis, the principle is the same.

Christ made notable application of the laws of psychotherapy. He seemed to fully understand the principle when he said, "thy faith hath made thee whole." The Gallilean did many so called miracles, which considered from the medical standpoint, are instances of the efficacy of psychic healing. In two cases he annointed the eyes of the blind making special mention of the faith of the afflicted.

In one instance, the blind man was "possessed of a devil," the scriptural formula of nervous disorder. These three cases must have been functional, and their cure due to powerful suggestion. Hysterical amaurosis is not at all uncommon. As soon as the afflicted had faith to see, they could see. In one case Christ took the man aside, and used spittle upon the eyes. This method of suggestion was used by many others. Emperor Vespacian according to Tacitus, cured those who fell at his feet, beseeching him to cure, in the same way. One man Christ sent to the pool of Siloam to increase and develop his faith.

But Christ's most interesting work was in cases of so-called demoniacal possession and palsy. There are five cases of diabolism mentioned and several cases of palsy, among them the old neurasthenic at the pool of Bethesda, the man let down through the roof whose bearers were commended for their faith, the man with the withered hand and the Centurian's servant, received what the christian science friends call "absent treatment." The old chronic, ready to try anything, waited among the blind and halt for Christ, whose firm assurances aroused his feeble will power and he was made whole, took up his bed and walked.

The man let down through the roof was evidently a victim of hysteria. The Centurian's servant had had a hysterical fit, followed by pseudoparalysis and he "lay sick of the palsy, grievously tormented," while his master searched for the Great Physician.

There are in this day, many instances of functional paralyses and health, while calling on the parents of his lady love, to ask her hand numerous cures of same under influence of strong emotion, or powerful suggestion. Most of us have seen some of these cases. Roosa recites the case of a sudden and profound deafness in a young man, in perfect in marriage. Not strange to say, after a favorable answer, he recov-

ered. There are three reported cases of Jesus raising the dead, but inasmuch as in one case Jesus himself said "the damsel is only asleep" it is not a violent stretch of the imagination to hold that the other two were also in trances.

A trance is a spontaneously induced hypnotic sleep and is usually deep and may simulate death and last for years. Wier Mitchell has collected twenty cases of protracted sleep. We all know of some of these cases.

We might go on and mention all of the twenty-one cases of recorded miracles, but enough has been said to demonstrate that Christ's healing was psychical. "In his own country, did he not many mighty works, because of their unbelief." Lack of confidence is ever fatal to suggestion. The world has failed to benefit from the teachings of Christ in psychotherapy, because it has regarded his work as supernatural and beyond the realm of law. Notwithstanding his plain declaration "He that believeth in me, the works that I do, shall he also do, and greater works than these." The New Testament is full of assurances that this particular power of Christ was not exclusively His, but belongs to all who have the grasp of faith.

The healing power of the royal touch of ancient times, of religious shrines in the past and present, of the bones of saints, of the Eddyites, magnetic and mental healers of modern times, are all of psychical order.

'Tis useless to deny these cures. In every instance the virtue lies in the stimulus which the visible means offers to faith, and not in any inherent healing qualities in aught outside.

The leaders in the development of modern psychotherapy were Mesmer, Charcot, Liebault and Bernheim. Mesmer's theory was that of transmission of a life-force which he called magnetism from one to another by direction of the will under hypnotic influence. He unconsciously applied the laws of suggestion, which he did not understand. The French Academy, in their report of his work, attributed his results to "imagination." Suggestion would have been a better term.

Charcot also applied suggestion under hypnotic influence induced by having patient look at a glittering object. In 1841 James Braid, in England, employed hypnotism in numerous diseases with success, and showed how the phenomena observed depended upon suggestion. Grimes, in America, and Liebault, in France, obtained independently the same results about the same time.

Liebault and his pupil Bernheim became well known advocates of the therapeutic application of hypnotism obtained by verbal suggestion.

In 1875 Charcot made an extensive report to the Academy of Science, of the phenomena of hypnotism, dividing the phenomena wit-

nessed into those of the cataleptic state, the lethargic state and those of somnambulism. We now classify hypnotism into two schools—that of Liebault and Bernheim, and that of Charcot and his pupils.

We cannot go into details of the nature and phenomena of hypnosis, but simply relate the development of the subject as a factor in the present status of psychotherapy; hypnotic suggestion, or psychic treatment under conditions of hypnosis, being one method of treatment employed at present. Farther along the line we find those who employ suggestion without inducing the hypnotic state.

Ballet, a French authority, in a recent article published in the *International Clinics*, classifies modern psychotherapy as follows: (1). Hypnotic psychotherapy; (2). Suggestive psychotherapy without hypnotism. (3). Psychotherapy without hypnotism. He adds that "hypnosis may be produced by having the patient look at a glittering object, by looking fixedly into his eyes, or by suggesting by word that he should sleep." The hypnosis produced varies in degree from profound sleep to mere somnolence. During these different hypnotic states the brain is especially apt to assimilate ideas,or to receive suggestions, consequently treatment consists in suggesting recovery; the second method, without hypnotism, appeals to the credulity of the patient and substitutes another's will for his; the third method is by persuasion and even in this there is much suggestion. This is a popular method among recent authorities.

Those who have carefully and conscientiously studied the subject of psychotherapy differ as to its exact power and the extent of its usefulness. We all unconsciously make use of it every day, in fact our success can be largely attributed to the impressions we make on our patients, in connection with material means used.

We all know the power of bread pills administered with cheerfulness and courage—that even a look or a gesture may become a suggestion to a patient to encourage or discourage him. But a clearer understanding of the laws would lead us to larger and less haphazard results.

Its use does not hinder the employment of appropriate remedies, but rather intensifies their action. Even in cases where drugs are not required they serve as means of indirect suggestion tending towards the desired end, because the people have learned to depend upon their use. We must take patients where we find them, having care to reinforce the medicines used with suggestion.

Much unnecessary mystery attaches to the term suggestion. Dr. Dercum, of Jeff New College says that "unfortunately it has been so closely associated with hypnotism that it has acquired an almost specific meaning." To make a suggestion, however, does not mean to impose a hallucination, or delusion upon a person in hypnotic sleep, but merely to convey to, or arouse in, the mind of another, some thought or idea in an unobtrusive manner.

It is a process always taking place, usually unconsciously, among the various individuals of the social body, and is, in itself the outcome of perfectly normal functions. Every experienced practitioner will admit that it powerfully affects his case for good or evil.

Mental factors influence, more or less, the physical condition of every patient suffering from acute or chronic disease, general or local. Even incurable cases it may assist materially in keeping the patient comfortable. Without stooping to any dishonest procedure or imitating the methods of the mind-curists, faith-curists or unqualified practitioners, self deluded and deluding, striking results can be achieved by simple and proper methods. Indirect suggestion is the form usually employed, but direct suggestion in the form of positive statement to the patient that he is improving and that he will recover, may be used.

The manner of direct suggestion must vary with the patient. With some a preliminary explanation of symptoms must be made. Care, tact and good judgment are the essentials of the successful application of psychotherapy.

The patient may easily be led to expect results too soon and thus lose faith in the physician and treatment. Again, the suggestion may be made too bluntly, or over-stated or exaggerated and as Samantha says, "not mejum enough," and thus fail, where one of moderate force would work well.

Disease is often a state of the entire individual and in order to effect a permanent cure, the mental attitude must be entirely changed.

Prof. DuBois, of Berne University in his work on "The Psychic Treatment of Nervous Disorders" makes the following statement: "If a person is impetuous, excitable, nervous, opinionated, easily aroused, or whatever the disposition may be, the most prominent characteristic is sure to modify both the disease and its cure; oftentimes it is the disease. The disposition is at fault, and the patient must be taught to overcome self with the will. A happy, hopeful, firm attitude of mind must be cultivated. It leads to new interests to inspiration, the cultivation of self poise and self reliance. This the christian scientists teach so successfully—not mere passing beliefs and states of mind and thought, which bring happiness, but that which becomes the life, the religion and education of the whole individual. The object of the treatment is to make the patient master of himself, and the means to this end is the education of the will, or more exactly, of the reason."

DuBois insists that psychoneuroses are amenable to psychotheraphy *only;* being psychic, they require psychic treatment. Included in his list of psychoneuroses (from which he has eliminated the neuroses which are probably of somatic origin, and retained those affections in which the psychic influence predominates) are neurasthenia, hysteria, hysterical neurasthenia and the lighter forms of hypochon-

dria and melancholia. He does not, however, limit the usefulness of psychotherapy to the psychoneuroses in the hands of the specialist in neurology and the alienist, but adds that its influence is a great help to the general practitioner in the treatment of all diseases, and that surgery could not be practiced without it. To the surgeon it is of great importance when the prognosis must be revealed and the patient led to accept operative intervention; that it has ever been one of the highest qualities of the most successful practitioners.

The Journal of the A. M. A., March 31, 1906, contains the following excellent editorial entitled "The Physician and Psychic Treatment:"

All through the history of medicine it has been recognized that the influence of suggestion plays an important role in therapeutics. The physician's assurance with regard to the significance of symptoms and as to the prognosis of the case has always been acknowledged as distinctly curative in tendency. Suggestion, however, has always been considered of secondary importance, and in the organic affections this is especially true. In recent years there have been many developments pointing to the therapeutic influence of the mind over the body whenever suggestion can be used with good effect, especially in regard to so-called functional conditions. Nearly a century ago Mesmer claimed that a number of presumably serious symptoms could be effectively cured by suggestion either in the hypnotic condition or in the waking state. In more recent times the success of mental healing and of Eddyism has called renewed attention to these facts. The frequently announced new remedies that prove after a time to be not so effective as was at first thought, because their novelty has worn off, provides further confirmatory evidence of the therapeutic value of suggestion.

During the past decade a number of contributions to practical therapeutics have been made that recommend the use of suggestion, not as a merely secondary and accessory method of treating certain functional diseases, but deliberately, as an independent therapeutic agent. Two valuable contributions of this kind have recently appeared. In the last volume of "International Clinics," Dr. Pallet, physician to the Paris hospitals, directs attention to psychotherapy in nervous diseases. He emphasizes the undesirability of using hypnotic suggestions in most of the functional neuroses, since not infrequently it leads to a further weakening of the will and a consequent loss of control over nervous conditions. He has found, however, that ordinary persuasion and rational discussion of symptoms with a patient will often prove sufficient to remove symptoms that have been a source of suffering for a long period. Dr. DuBois, professor of neuropathology at the University of Berne, Switzerland, has published a book, which we reviewed recently, in which the proper use of psychic treatment for nervous diseases is systematically considered.

Both these authorities have picked out certain underlying conditions which are causative of nervous symptoms and which they have found amenable to psychic treatment. The most important of these are the fixed ideas and the so-called phobias or fears which often prove sources of so much worry to patients as to bring about extremely annoying and persistent symptoms. Fixed ideas are especially likely to rule over the digestive tract and must be removed before any of the

many forms of neurotic dyspepsia can be lastingly improved. Patients become convinced that they can not take certain kinds of food or that beyond a certain quantity their digestive organs are unable to dispose of it properly, and then a whole round of symptoms is likely to develop, because of the lack of nutrition consequent on food limitation. More is accomplished by carefully removing such fixed ideas than by the administration of the most nicely adjusted digestive remedies or the use of the most powerful ferments and enzymes to aid the ordinary ferment processes.

Phobias are especially likely to affect the heart and the cerebral circulation. Two very important sets of symptoms develop as a consequence. The heart palpitations of neurotic patients constitute one of the most important sets of symptoms with which physicians have to deal. Pseudo-angina-pectoris, with positive pain in the precordia and a sense of impending death, occurring in young persons without any signs of arterial degeneration or any symptom of a heart lesion, is the worst of these, but the symptoms may exist in minor degrees down to simple palpatation. Not infrequently the sleep is disturbed as a consequence of the patient's solicitude with regard to the possible consequences of these symptoms, and the result is another element in the vicious circle that gradually undermines the patient's physical condition. Insomnia itself in its varying forms, probably due more to disturbances of cerebral circulation than to any other single cause, comes under the same head and is often rendered persistent by the patient's anxiety as to whether or not he will be able to sleep, and his constant fear lest his loss of sleep should eventually lead to intellectual deterioration and perhaps to insanity.

Any physician of experience knows how difficult it is to treat such patients by any of the ordinary remedial measures. He is aware, also, how often such conditions are improved by the changed state of mind consequent on a series of interviews with a mental healer or the suggestive influence of some one who has insisted with authority that the condition can surely be cured. The deliberate use of persuasive suggestion in these cases is recommended by Ballet and DuBois as the most efficient remedy and one whose influence will persist longer than any other method of treatment. The suggestion may have to be repeated on a number of occasions, but if the physician can assure his patient that there is no organic lesion of heart or brain, either existent or impending, then improvement is usually a matter of only a short time. There seems to be no doubt that the deliberate use of this method of psychotherapy would add a new and efficient therapeutic agent in the treatment of what are usually very obstinate cases.

Its more general employment by the general practitioner would lessen the number of patients who now tire of the consumption of drugs from which no benefit is derived or from which only temporary relief is obtained, and who eventually find their way at the present time into the hands of quacks and charlatans of various kinds. All physicians employ suggestion to some degree, but there is room for its employment to a much greater extent and in a wider field with benefit to rational medicine, to physicians and to their patients.

The manner in which psychotherapy acts offers an interesting problem. The role which the nervous system plays in the function and nutrition of every structure of the body is well known. It is prob-

able that every tissue has a nerve supply which dominates its nutrition. We know this to be true of many structures, and with others it is a logical and legitimate conclusion. Mental conditions undoubtedly have great influence on the nerve supply and mental conditions can be changed by psychotherapy. It is in the vital functions of circulation, digestion and secretion, that we, in our elementary knowledge of psychotherapy, consider it of greatest importance. We have long noted the effect of the mind on bodily functions in health. The flushing or paling of the face by an emotion, the results of fear, a powerful thought which may even cause death, and the effect of emotion on the perspiratory glands, the digestive apparatus, the secretion of milk, etc.

Darwin has spoken of the effects of grief. He found circulation contracted and feeble and the tone gone out of the muscles and organs.

In homesickness we find similar conditions and physicians realize the inadequacy of treatment. If thoughts can so modify the impulses going out to the various organs, may not direct messages from the will, given with definite instruction, do as much, or more?

From Dr. L. Menard, an eminent French physician, in an article on "Some Methods of Psychotherapy" we quote as follows:

The influence of thought on the organism is easy to prove.... The concentration of the mind on a point, or the lively excitation of passions or imagination, have the power to modify the organic functions. Emotion and imagination are able to modify the secretions, as is shown by the fact that the mouth becomes dry and hot in fear or anger, while the thought of savory food makes it moist.... A violent emotion may thus so greatly change the secretion of gastric juice as to cause indigestion in persons predisposed to it. The popular expression 'green with anger' refers to an attack of jaundice caused by an accumulation of bile in the blood due to passion; in such a case, nervous excitement hinders the normal working of the liver.....

"Numerous cases may be cited where remedies have acted according to the belief of the patient in their special effect and sometimes in a way opposed to their ordinary properties....Still, we must not exaggerate the bearing of these exceptional facts and think that by exerting influence over the imagination of patients, or even by using hypnotism, we can always purge them with opium and put them to sleep with emetics."

Psychotherapy, Dr. Menard goes on to tell us, avails itself of these facts in a variety of ways. It may cure by emotion, as when a girl who had lost the use of her voice for years regained it in the fright of seeing a friend in the path of an oncoming train. Or it may act by persuasion, as when the physician succeeds in arguing a patient out of the idea that he is unable to talk or to walk. Again, it may have recourse to distraction, as Pascal did when he cured a toothache by applying himself to a difficult mathematical problem. Or it may employ, perhaps through long years, processes of education and training. All these are methods of treatment by psychotherapy or scientific mind-cure.

"In the various cases of cure through the psychism by means of emotion, distraction, or persuasion, a powerful thought weakens or banishes from the field of consciousness, sometimes by substitution of

itself, the parasitic idea that has brought about the malady or hindered its cure.

"When the emotion, persuasion, or distraction causes a morbid manifestation to disappear, either permanently or momentarily, when the efforts of conscious and free will, directed toward this end, with or without the aid of an adviser or trainer, relieve a patient of an infirmity or a hurtful tendency, there is an action of the thought on some of the organic functions, and on physiologic or morbid tendencies, but there is not, properly speaking, 'suggestion' in the restricted sense that this word should have. In this sense it should be applied only to action exerted on the inferior psychism or the subconsciousness dissociated from the superior center in the state of hypnosis or sleep. Hypnotic suggestion aids us in penetrating the mechanism of psychotherapy, but it does not, in itself alone, constitute the whole of psychic therapeutics, and it would be wrong to try to bring this about."—

In the light of our present knowledge it is impossible to state with accuracy the definite limitations of the effect of the mind. Neither do we know the *exact* influence of any drug upon the elements of any organ, nor the exact action. Yet we know enough of the effect and actions of remedies to make some practical use of them. So with the power of the mind over the functions and conditions of the body. The deeper one studies into the subject and the closer one observes the relation of mind and body, the stronger grows our faith in its power to heal. But it behooves us to be scientific, proving the way.

Human progress has always been made by reason of judgment, carefully selecting the truth from the dross. No branch of science has ever evolved in any other way. As an aid to medical science, psychotherapy may be of inestimable service and no line of investigation, perhaps, at the present time, would better repay the progressive physician than a scientific, unprejudiced inquiry into the facts and phenomena of mental healing.

We must keep on investigating and searching after truth, always maintaining a scientific skepticism and philosophic doubt.

DISCUSSION.

Dr. C. A. Mitchell, Blythedale: This is a subject in which I take great interest. After all, is there very much in life save suggestion? Is it not true that "as a man thinketh so is he?" Is it not after all the fact that it is a successful physician prescribing his nostrum, and the faith of the patient and of the patient's friends that is of the greatest help? Is not mental suggestion one of our great fields of success? We know how readily the secretions dry up under mental stress. In autosuggestion lies our greatest help or hindrance. We know nothing save what is taught us, the suggestions, the ideas of our teachers are stamped on these brain cells, and these are what we use. If we would more carefully consider psychotherapy and use it intelligently we would have greater results. We find the faith cures everywhere.

There arose a school a few years ago for the giving of absent treatment and in many cases they got results in functional diseases.

Dr. John Punton, Kansas City: I listened to Dr. Wilson's paper with much interest and after an experience of twenty-five years I am compelled to endorse all that she has said in reference to suggestion. The science of medicine comprehends everything that pertains to the knowledge and cure of disease and long since I gave up the idea that all disease succumbs to medicine and surgery. There is much more in suggestion judiciously applied than there is in drugs or surgery. I have seen the power of suggestion and the results of influence of mind on mind have astonished me. We see the power of suggestion every day. A leading obstetrician told me only a few days ago that when called to a case where the pain was extreme he practiced suggestion by using a few drops of chloroform on a handkerchief. We know that the few drops of chloroform could not produce any result. Anything that pertains to the knowledge and cure of disease is scientific medicine and the man who discards the use of suggestion today is not doing his best for his patients. It has been so long associated with quackery that we hesitate to give it a trial, but it is well worthy such trial.

Dr. J. T. Rigdon: Taking a disease where there is a real bacteriological infection, such as lobar pneumonia or cancer, can the leader of this discussion or the essayist effect a cure with hypnotic influence or suggestion, with bread pills, or with any other remedy such as is known to experimentation? Such diseases as are treated successfully by this method I would question as being disease at all. In those imaginary conditions of the nervous system where there is no pathological change, there may be benefit derived from this treatment, whether you call it deceit or fraud or suggestion. But if there is any real pathological condition can you make the patient think there is none and cure him by this method? I don't think suggestion plays any part in this process. It takes such remedies as quinine, mercury, or some other chemical agent to produce action in the tissues to repair damage done. Such conditions as imaginary nervous troubles (and there are many) are easily cured by suggestion. Yet the kindly assurance of the regular physician can through honest methods convince the patient that there is no real disease, and it is his duty to go on with his regular life. On the other hand I contend that if there is any real disease, all the suggestion, or bread pills you can administer will not prove effective. In my opinion the cases referred to in the essayist's quotations from scripture do not come under the head of the subject. Those were simply manifestations of divine power, which I hope neither the essayist nor the leader of this discussion claim to possess. The days of miracles passed away with the death of Christ and his holy apostles years ago. I am opposed to foisting upon the noble profession of medicine,

which is based upon chemical action and reaction, any method or theory that does not so depend and call it therapy.

Dr. Punton: Does the doctor consider hysteria an imaginary disease, and if he does, what is his idea of the pathology of it?

Dr. Rigdon: There may be some light forms in which there is no pathological change, in others, advanced cases, the brain or nervous system may be really affected. I do not know that I am prepared to discuss the pathology of the condition known as hysteria, but I contend that where there is any real pathological change in the substance of the brain or any of the parts affected, your bread pills and suggestion alike will fail to effect a cure.

Dr. Wilson, in closing: I did not expect this body to agree with me. I have not offered psychotherapy as a remedy for organic disease; I spoke of it in reference to functional disease of the nervous system but I did say that in *all cases* it has its influence.

BRONCHO-PNEUMONIA.*

BY T. O. DAVIS, M. D., MAITLAND, MO.

By the term broncho-pneumonia I mean that pathological condition that in former times was called catarrhal pneumonia, lobular pneumonia, and capillary bronchitis. I like the term broncho-pneumonia, first, because it most nearly describes the condition, as we always have present the essential bronchitis, and the pneumonic process; and, second, because we can secure better attention to our patients by the nursing laity if we name the trouble pneumonia for that term always attracts attention in any one who is close enough an observer to do any non-professional nursing, and that is the kind of nursing we in rural districts must largely depend on.

The disease is most commonly met in the extremes of life, that is in the very young and the aged. Among children about 25 per cent. of the cases are primary, and about 75 per cent. secondary to some of the diseases common to childhood, viz., measles, pertussis, diphtheria, scarlet fever, influenza and chicken pox. It will be noticed that these are diseases in which bronchitis is usually present, or in which the upper air passages are specially involved in the morbid process.

In older children and adults this disease may occur as a complication of any long continued severe illness, more particularly in those conditions in which the mucous membrane of the mouth and pharynx becomes foul and the laryngeal reflexes are less active than normal.

The predisposing causes in primary cases are old age and infancy,

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bad hygienic surroundings, impure air of the over-crowded, poorly ventilated rooms, bad feeding, and in fact any or all of those conditions of life where normal nutrition is interfered with. In these conditions the microorganisms which are nearly always present in healthy air passages, find suitable soil for their rapid growth and development.

This disease is most frequent in winter months partly because the primary diseases of which this is a complication are more prevalent at that time and also because of exposure to cold and wet occurs at that season, and this I think is the most frequent exciting cause. In deglutition pneumonia the exciting cause is at once manifest and should not be mistaken if a correct and complete history of the case can be obtained.

The development of broncho-pneumonia in old people is favored by diminished powers of resistance and in both the old and the young by the less perfect expectoration. It is well to encourage expectoration to diminish this cause. The microorganisms most frequently found are the diplococcus pneumoniæ, streptococcus, staphylococcus aureus and albus,Friedlander's bacillus,Loeffler's bacillus,and the colon bacillus. The most frequent in the primary cases is the diplococcus pneumoniæ and, according to Hale, in about half the cases is found alone. When not alone it is most frequently found with the streptococcus and much less frequently with the staphylococcus and the other organisms mentioned above. Occasionally the streptococcus is found alone.

In secondary cases it is the rule to find a mixed infection. The diplococcus pneumoniæ is found in about 75 per cent. of the cases but it seems less potent in giving character to the disease than the streptococcus. Although generally speaking the streptococcus plays the most important part in broncho-pneumonia complicating measles, it is in this form that the diplococcus pneumoniæ is more often found in pure culture than in other secondary cases.

It is not at all uncommon to mistake an acute tuberculosis for a broncho-pneumonia and before the error is discovered serious results may follow.

Especially is this true when the diplococcus pneumoniæ is present in sufficient numbers to give character to the disease. While in lobar pneumonia in the great majority of cases only one lobe is involved, yet in the bronchial or lobular form the rule is that both lungs and lobules in all the lobes are involved and the lesions found side by side and in all the lobes or only one lobe as the case may be, are essentially those of bronchitis and of pneumonia. The lesions may be central and so marked that only by a very careful examination, and frequently several examinations, may they be discovered, as in those cases where the lesions are central there may be scarcely no involvement of pleura of either the parietal or pulmonary wall, and only by the clinical history can the diagnosis be cleared up.

The symptoms may be very obscure and even misleading making it almost impossible for several days to clear up the diagnosis. In the primary cases as in the acute bronchitis, the early symptoms are, loss of appetite, a general malaise, slight rise of temperature, increased respiration and pulse and cough either dry or with a mucous expectoration in those able to perform that important act. The invasion will vary greatly. In some it will simulate lobar pneumonia very closely being marked with chill, or possibly in children with slight or severe convulsion, and by a rapid rise in temperature to 100 or 104 F., or even higher, or the invasion may be insidious with no characteristic features, the symptoms simulating typhoid fever, or meningitis.

In those cases simulating meningitis there may be repeated convulsions, photophobia, retraction of the head with rigidity of the neck and an absence of physical signs of consolidation in any portion of the lungs.

In secondary cases the prodromal symptoms and invasion are masked by conditions attending the primary disease. The invasion is generally gradual and seldom marked by convulsion or chill.

The child becomes restless and there is disturbance of pulse, respiration ratio, with rise of temperature and increase of cough, or, if none was present before, cough develops at this time and should always be looked upon with suspicion. The cough may be dry and hacking and if there is any expectoration it is mucopurulent in character. An early symptom may be the cough which is painful, frequent and hacking, and on account of pain the child will refrain from coughing as much as possible. If the cough can be kept loose and expectoration free there is much less pain present and the patient consequently more comfortable.

The cough often persists after resolution has taken place and it is often those cases that give us the tubercular patients later if there be any exposure to tuberculosis. I have made it a point to caution patients with these after coughs to be very careful about exposure to consumptives for some months afterward for fear of tuberculosis developing.

The temperature varies according to the extent of the lesions present, the virulence of the infection the general condition of the patient and with the variety of microorganisms present. It may rise slowly or very suddenly, to 103° or 105° F., and it averages moderately high. There may be sharp elevations, generally in the afternoon but at times in the early morning. The variations in the temperature curve gradually become less and less. In the favorable cases the trend is downward the restoration to normal being generally by lysis.

In unfavorable cases the trend is gradually upward the temperatuer sometimes reaching 107° F., or the temperature may be constantly of a high continued type, this usually pointing to a fatal issue. On

the other hand in the greatly debilitated the temperature often does not go above 100° F. These patients usually succumb.

Pain is not a constant symptom and frequently is felt only by deep inspirations and occasions little trouble.

It may be a few days before any signs are discoverable in the chest unless by a very careful auscultation assisted by having the patient cough. In primary cases the first signs are due to the congestion and bronchitis which may be localized in one or more areas or may extend over both lungs. The results of percussion may be negative or there may be slight dullness.

On auscultation we detect feeble breathing which later has a higher pitch and is associated with fine sibilant or coarse sonorous rales in the affected area, or may be heard over a larger area than would seem involved from the percussion dullness.

Often a severe cough may clear for a time the rales from the lung which will reappear after a short time. Frequently very fine moist rales will be heard usually in the lobes behind, especially if the patient remains much of the time on the back.

The signs of consolidation vary according to the area and degree of consolidation and also according to the proximity to the chest wall. In the cases in which there is a large area of consolidation the signs simulate closely those of lobar pneumonia and it is at times very difficult to diagnose between the two. It must be made on the age history, sputum if any be present, and on the physical signs. The physical signs alone furnish positive evidence.

If with coarse rales heard throughout the chest the temperature should continue to rise for three days in succession above 103° F. broncho-pneumonia is undoubtedly present unless there be some other disease present to account for the rise in temperature.

If instead of the bronchitis being generalized the signs are located in one lung, or confined to one lung posteriorly, broncho-penumonia may be regarded as certain. In other words localized bronchitis with temperature rise means broncho-pneumonia provided tuberculosis can be excluded. Broncho-pneumonia is always a serious disease and in infants and the aged dangerous to life.

The prognosis depends upon the age, surroundings and previous condition of the patient. In primary broncho-pneumonia there is a severe strain on the patient, and in the secondary form where the patient is much debilitated with, or from the primary disease, the prognosis is always very grave.

The prognosis must always be guarded as in my experience while a patient may apparently be getting along well, we may have a re-infection or extension to other portions of the lung in spite of the treatment, and these repeated re-infections exhaust the patient so that he finally succumbs.

The most favorable cases are those with moderate and nearly even temperature not running to extremes either way.

The terminations may be by resolution, suppuration, gangrene, chronic broncho-pneumonia, or death. The mortality in all cases is about 60 to 70 per cent.

Treatment. Prophylactic treatment is very important and care should be taken to see that children are properly clothed, that is plenty of clothing to keep the body warm under the conditions in which the child is placed, yet not over-clothed so that the clothing is burdensome. They should be allowed free exercise out of doors in all but the most inclement weather and I sometimes question if it is not best to let them go when they want to go no matter what the weather. We notice that the children of the very poor who are exposed to all kinds of weather seldom have lung troubles of any kind and if they do their hardy life enables them to combat disease much better than their more fortunate or unfortunate companions. Rooms should be well ventilated and the child should be accustomed to an even temperature when in health, if possible, and this temperature should be between 65 and 75 F. When fever is high the child will bear a lower temperature than when no fever is present.

While I believe in an even temperature yet we often meet with cases that in health are used to a high or low temperature and in these cases it is too great a change to ask that they be subjected at once to a fixed temperature of 70 degrees, but they should continue in a temperature near to which they are accustomed; if desired by the physician to make the change to 70 degrees let it be done gradually and governed largely by consulting the patient's comfort. Infants are better off by being held much in the nurses arms and frequent change of positions, to prevent if possible metastatic congestion in the lower back part of lung.

I like to begin treatment with calomel 1-10 grain one-half to one hour until six to ten doses are taken according to condition and age of child, and after the first round I frequently give 1-10 grain every four hours until secretions are aroused. Where cough is harsh I give ammonium carb. et doveri in sufficient doses every three hours to allay any nervous symptoms present and liquify sputum, or loosen the cough and thereby secure more comfort to the patient. I give this in enough sweet milk to cover taste.

I also use an expectorant mixture with glycerine as a base consisting of ipecac, squills and wild cherry. Counter irritation should be maintained by the use of some counter-irritant, namely mustard paste, tinct. iodine or capsicol, and I like to envelope the entire chest with a cotton jacket which should be worn until convalescence is well established, being careful not to interfere with respiration. The vital forces should be watched carefully and stimulants given as soon as indicated.

I think it is a mistake to give stimulants until there is a call for them as patients may acquire a tolerance for them and they must be largely increased when they are needed and because they increase heart action when not needed wearing out that organ which should be spared all extra work in this disease. They are indicated when the pulse is weak, rapid, compressible, or irregular. Whiskey or brandy is good in these conditions and we get a response from them I think quicker than anything else by the mouth. The dose is to be regulated by the condition and age of the patient the effect watched, and should be withdrawn as soon as possible. Strychnine is indicated to re-inforce alcoholic stimulants; the effect is more lasting and not so much depression follows withdrawal; it is to be preferred to follow alcoholics and thus may be continued as long as needed.

Where much congestion of the lungs exists, and consequent threatened heart failure, nitroglycerine is good as by dilating the superficial capillaries the congestion is relieved. For the respiratory stimulants which are often indicated strychnia I like best of all. Caffein may be given in 1-8 grain doses repeated hourly. These measures will tide patients over some of those cases of sudden weakness but in cases that come on gradually the effect will be only temporary and treatment of any kind is usually disappointing.

Where temperature does not rise above 102° or 103° F. very little treatment is required for fever.

Cold sponging if the child will bear it, is the best antipyretic known and I use it in preference to all others if a child will allow it, and generally it can be used if the nurse or attendant uses tact in the beginning. When child resists the cold sponging I sometimes use warm sponging which answers almost as well as cold; either relieves the hot dry skin and restlessness so often present and patient will drop into quiet sleep. Whichever bath is used it should be repeated when symptoms return.

During later stages the principal danger is from exhaustion and all depressing measures are contra-indicated. It is necessary to give careful attention to nutrition of the patient throughout the disease. After attacks of broncho-pneumonia general tonics are indicated and should be continued until lung tissue is restored to normal, I would condemn the practice of sending patients to the so-called health resorts, first, because the patient's physician understands him better than any strange physician and can direct his every day life and diet and meet any change with appropriate treatment. Second, because health resorts are crowded with incipient tubercular patients making them the best possible field for infecting one just recovering from broncho-pneumonia. Third, because many of our patients are not able financially to take those extensive and prolonged trips and if the case shows disposition to be protracted we often fear tuberculosis. Let us not

be cowardly and send patients to other fields to die among strangers and away from home but meet the conditions bravely, do all we can for the patient at home and if die he must let him die at home among friends and friends will be better satisfied than if he was sent away.

DISCUSSION.

Dr. Woodson Moss, Columbia: I have nothing to say but words of commendation. Broncho-pneumonia, from the very fact that it attacks the extremes of life, and follows in the track of debilitating diseases, is the very nightmare of the profession. The essayist has quoted the authorities on the etiology of the condition and yet the best of them often throw no light on the treatment. We have no specific treatment for broncho-pneumonia. It may attack any child under three years of age and it ranks next to bowel troubles in fatality. We know nothing new in regard to its bacteriology, its pathology or its symptomatology. We perhaps have advanced a little in diagnosis. The only thing it is likely to be confused with, is lobar pneumonia, and I don't know that it makes much difference whether we make the diagnosis or not for its treatment is very similar. It is just a supportive treatment right from the start. Like the doctor, I do not believe in giving stimulants too early. In the case of patients at the extremes of life, many of the remedies that we can use between these extremes are cut off from us, such as opium, for instance.

Dr. Davis, in closing: I wrote the paper largely as a call for help, hoping to get something new in the treatment of this condition.

MALARIA.*

BY T. C. ALLEN, M. D., BERNIE, MO.

The views of the medical profession on the question of malaria have undergone a radical change in the past two decades, because of a knowledge of new facts established by careful investigation and research. About the only old landmark remaining is the treatment, and that is well nigh immutable because quinine in malaria is one of the few specifics known to medicine.

Malaria is an acute, infectuous disease, due to the presence in the blood, and, exactly, in the red blood corpuscles, of the plasmodium malariæ, which is a true parasite, a uni-celled animal, and not a bacillus. There are four varieties: Quotidian, tertian, semi-tertian and quartan, having life cycles of 24, 48 and 72 hours, respectively, bearing a direct relation in their life cycle to the type of fever they produce. A quotidian paroxysm may be due, however, to two swarms of tertian parasites, sporulating on alternate days. Likewise a swarm of tertian

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and one of quartan, sporulating normally, may produce a quotidian paroxysm for two successive days and then a tertian paroxysm. So two swarms of quotidian parasites may produce two paroxysms daily. These varieties of parasite are distinct entities and not varied forms nor various stages of an identical parasite. Pernicious malaria is due to the crescent form of the semitertian parasite.

The paroxysm of typical malaria is produced by the sporulation or hatching of a new swarm of parasites, which individuals become powerless to produce another paroxysm, except by sporulating a new swarm in turn.

The parasite has two life cycles necessary to its perpetuation—asexual in man and sexual in the mosquito and, possibly, other insect hosts. We have not a perfect knowledge of this, but it is, briefly: The germinal rods in man generate ameboid bodies and the sexes become separated, the male forms being flagellating granular bodies and the female non-flagellating hyaline bodies. These forms are sterile in the human host, but in the mosquito fertilization between the sexes takes place and the motile form is born. This penetrates the tissues, usually the stomach wall, of the mosquito, becomes encysted and from it the germinal rods are developed, to begin again the cycle.

The mode of infection is by inoculation from one individual to another, the anopheles mosquito being the medium, or carrier of the infection. The period of incubation in the mosquito, from the ingestion of the parasite until its bite will infect, is eight days. In man, from inoculation to manifestation of symptoms, the period is fourteen days, with, exceptionally, great variation. The parasite loses its virulence in dry air, to regain it when returned to marsh conditions.

The role of the mosquito in transmitting the disease is now so well established and so universally accepted as to need no defense nor recitation of experiments establishing it. It is established that wherever malaria is there is the anopheles mosquito, but not necessarily the converse. The systematic extermination of the mosquito with the corresponding disappearance of malaria from very malarious districts is a case of proving the diagnosis by the treatment strongly supportive of this contention.

The question of the malarial infection of the fetus in utero is one not generally discussed, so far as I am aware. Osler is silent on the question. A careful reading of the *Journal of the A. M. A.* for the past five years has rewarded me with a report of but two cases, one by Dr. Lindsay Peters, Baltimore, June, 1902, and one by Dr. W. L. Lawrence, Yellow Pine, La. A case of my own: A lady who had suffered with a malarial cachexia almost all of the summer and fall of 1905, gave birth to a son on December 15, 1905. On December 20, this infant had a paroxysm, undoubtedly malarial. The paroxysms continued daily until December 26, when the infant died. The paroxysms

were typical malarial ones, the spleen greatly enlarged and jaundice pronounced. This was in winter, in a closed room, where no mosquito could have been, and the period of five days from birth to manifestation of symptoms, is far below the minimum of incubation.

Following a continuation of malarial paroxysms the infection establishes a malarial cachexia, or chronic malaria, showing the clinical picture of puffy, waxy, sallow skin, icterus, ascites, anasarca general or regional, tender liver, enlarged and hardened spleen, hydremia and a paucity of both red and white corpuscles. The spleen is at once the cradle and the grave of the parasite.

After repeated sporulation there seems to obtain a species of autoimmunity, the parasite becoming innocuous but accumulating in the spleen, a deep splenic injection of quinine, or, occasionally, the ingestion of large quantities of it, or sometimes some fortuitous circumstances not readily recognized, driving them into the peripheral circulation and reestablishing their activity. This is latent malaria.

The continued malarial fever is in reality not a malarial fever, but a toxic fever, due to the presence in the blood of toxines, the result of the parasite's death, or of its excrementitious products. The unfailing sign of malarial infection is periodicity, whether it be a typical paroxysm, an enteritis, an urticaria, a neuralgia or a rheumatoid attack.

The complications of malaria are legion: Asthenopia, vertigo, hematemesis, hemoptysis, neuritis, splenitis, hepatitis, herpes, urticaria, pruritis, erythema, pompholix, gangrene, all showing a distinct periodicity. Hemoglobinuria is a grave complication superinduced by the ill-advised administration of quinine to malarial subjects in whom the red corpuscles are gravely malarially diseased and degenerated.

Immunity to malarial infection is never acquired, although the negro seems to be relatively immune.

Since the anopheles mosquito is the carrier of malaria it is obvious that his extermination will practically stamp out the disease. An acquaintance with this variety is therefore important: His wing is dark and spotted, that of the culex is clear; his palpi are long, almost as long as the proboscis, that of the culex very short. When at rest his head and body are on a line but at an angle of 45 degrees to the surface on which he rests, the culex is hump-backed but the body parallel to the surface. He breeds only on partially stagnant pools of water where algæ may be obtained, being in fact a country mosquito; the culex breeds anywhere. It follows that the breeding places should be drained and filled, and the attacks of the mosquito on man in every way combatted.

Quinine is a specific because of its flourescence, producing violet rays of light in the blood, in which the parasite cannot stream, hence preventing sporulation.

DISCUSSION.

Dr. Herman E. Pearse, Kansas City: The bugbear of the surgeon is fever when we don't know where that fever originates, so we get into the habit of hunting for malaria very methodically. At St. Luke's hospital we make every month from forty to fifty blood examinations. A few years ago I took the position that no patient should be treated for malaria unless the organism could be found in his blood, but I have withdrawn entirely from this position. The diagnosis of acute malaria and the cure of malaria must be made without any reliance upon the microscope. You may rely upon the microscope to convince you that you are right when the patient does not respond to the quinine. I can mention several cases that are illustrative of my reasosn for this belief. The first was a boy of 16 years. Had fever in Arkansas but the microscope showed no plasmodia; he continued to have his chills, fevers and sweats and after he had had three attacks I gave him quinine any way, and everything stopped at once. Yet four days after the cessation of the fever, and a week after I first saw him the plasmodia were found. He reapplied for treatment three weeks ago. The malaria organism could not be found but he was put on quinine and the attacks have ceased, yet the organism has never been found in this second attack. Another case is equally interesting. The patient was one of a ship load of men for the Philippines. I went over those men to see if they were fit subjects for tropical service. I turned down two, one on account of a rash and a temperature. He had been living in Arkansas and said he had been taking 20 grains of quinine but did not know that he had a temperature of 101°, was not sick and was going about his work. He is now a well man, eats heartily, is of good flesh, has no temperature, is of good appearance, and yet a drop of blood at any time shows the plasmodia. I remember a case that occurred in the East. A sailor entered Johns Hopkins hospital with acute malaria. Blood stains were made, patient finally cured and discharged. He came back six months later with a compound fracture of the leg. An examination of the blood from the cancellous tissue of the bone of the leg was made and the plasmodia found. I believe the infection may remain latent for years and years and I do not believe that a good appetite and subjective relief is any proof whatever that the man is cured of malaria.

Dr. Charles F. Briegleb, Franklin: There is one statement I wish to consider, and that is the occurrence of malaria in winter when no mosquitoes are around. I have had this occur in my practice frequently and believing the mosquito to be the agent have asked the family to search the apartment for the mosquito. I have had the report made a number of times that the mosquito was found in midwinter, and I recall one warm afternoon during the past winter before one of the last cold snaps, while I was sitting in my office conversing with a patient

on this subject, we noticed a big mosquito on the outside of the window trying to get into comfortable quarters. I make mention of this observation to call attention to some unsuspected and over-looked sources of *acute* malarial infection out of season, in addition to, and possibly explaining some of the so-called latent forms.

Dr. Allen, in closing: My only thought in preparing this paper, was to suggest a few things to bring up a discussion. I am of the opinion that the underlying factor of malaria in other diseases is not appreciated. There should be no difficulty in diagnosing a typical case of malaria. We who practice in the swamps know that after the chills are broken a latent condition seems to be established which will manifest itself later, and such Dr. Pearse's case may have been.

TUBERCULAR ARTHRITIS.*

BY J. H. TANQUARY, M. D., ST. LOUIS.

Tubercular arthritis is a tubercular inflammation involving, not only the synovial membrane of a joint but may include tendons, ligaments, cartilage, bloodvessels, nerves, or any other tissue found about the joint. It is not a very rare disease including, as we today see it, most of the chronic joint affections.

Prior to 1882, the date of the discovery of the bacillus tuberculosis, these cases were not well understood and were generally believed to be constitutional, hence treated with general remedies, mechanical and operative treatment being almost entirely neglected or perhaps not well understood.

It was formerly named scrofula, tumor albans, white swelling, morbus coxæ, and by very many other terms too meaningless and numerous to consume our time in naming. Not only was the true etiology of this disease established by the discovery of the tubercular bacillus but the entire management of these cases has been revolutionized since that discovery. Besides this germ there are many other predisposing causes of this disease, occurring as it usually does at an early period of life, being most common at from three to five years of age.

It frequently follows diphtheria, scarlatina, lagrippe, typhoid fever, and many other depressing diseases that prepare a suitable soil in the system for the life and propagation of these germs.

While we now know that this disease is not inherited, at the same time we must recognize the hereditary tendency calling for strong, resisting powers on the part of children of tubercular parents; we also know that family history cannot be so perfect as to produce immunity from this disease. Children of crowded cities where sanitary conditions are bad, and where the supply of pure fresh air and proper nour-

*Read before the St. Louis Medical Society, April 7, 1906.

ishment are not sufficient, are likely to a considerable per cent. of them, to suffer from this disease.

It comes on as a later infection after the germs have been introduced into the respiratory or alimentary tract, or some other part of the system and carried by a bloodvessel or lymphatic to the vicinity of the joint or to the joint itself, where it always begins in children as an ostitis, gradually extending to the joint to become an arthritis, or in the adult patient may be carried by a bloodvessel or lymphatic directly to the joint, becoming an arthritis at once. This disease is chronic in its nature, not rapidly invading the tissues about the joint, producing pus, fever, and other symptoms of a more violent inflammation, unless accompanied by pyogenic germs, but in its characteristic, slow, cheesey mass way, finally gets there doing irreparable damage to the parts if allowed to continue uninterrupted.

The onset is not rapid. The original focus may remain dormant for a long time, or if resisting powers are sufficient may eventually be overcome, but if resistance is overcome and development continues, sooner or later there is complaint of soreness, or stiffness, increasing with motion of the affected joint, gradually developing into quite severe paroxysms of pain that become worse and may be unendurable at night. Swelling to a greater or less extent is always present above, below, and around the joint. The veins appear very large and well outlined in the swollen parts, and the skin assumes a pale glistening appearance formerly leading to the term, "white swelling." As the disease improves the swelling disappears. Above and below the swollen area, we always find (after about three or four weeks) marked atrophy of the limb, which is very common in this disease, and which not only remains while the disease is in progress, but may be found always to some extent after a severe attack.

The joint becomes fixed by muscular contraction (as a result of a reflex action) at an early period of the disease, sometimes to such an extent as to resemble an ankylosis.

If the limb be gently manipulated a spasmodic effort of the muscle is always present as long as the disease lasts; this is perhaps the most reliable of all the symptoms of the disease.

A low grade of fever that may extend at times to 100° or 101° F. is present in most of these cases.

Deformity is always found in the later stages of the disease, unless prevented by early and proper treatment: the limb becomes flexed and later subluxated, the synovial membrane thickened and epiphyses enlarged.

In old cases, especially those that have been neglected or complicated by the presence of the pyogenic germs, we may have suppuration, abscesses, (followed by sinuses) which are always more or less destructive to the tissues, and especially in adult patients, may mean

entire loss of joint in an ankylosed condition, or of life. But when an early diagnosis is made in a young patient and promptly followed by correct treatment good results may be expected, so far as the life of the patient is concerned, as well as a useful limb without deformity. Bad results, deformities and a death rate in the past of from fifteen to twenty-five per cent. of these cases within five years, have been due most probably to a great amount of neglect and improper treatment.

The prognosis among the adult patients is always more serious as they are not only slower in making a complete recovery, but very prone to suffer from many complications. They often suffer from abscess, resulting in ankylosis or possibly sepsis, and may require an operative procedure to save life; a large per cent. of them develop a pulmonary tuberculosis, or amyloid changes of liver or kidney finally losing their lives.

Every general physician as well as specialists on diseases of children should have the prominent early symptoms of tubercular arthritis well fixed in his mind because a correct early diagnosis followed by prompt and efficient treatment is of very great importance in these cases.

Family history is of very little value in making a diagnosis, because the disease may be found amongst the few who have a perfect family history.

The most common error is in pronouncing the disease rheumatism. This mistake should not be made because rheumatism is a polyarticular disease, while tubercular arthritis is monarticular. Acute osteomyelitis may also be mistaken for tubercular arthritis, but the acute suppurative inflammation of the shaft of the bone with a high temperature and other acute symptoms would soon show it different from tubercular arthritis.

Treatment, after an early diagnosis and in all young patients, by expectant methods, and mechanical treatment should usually be successful in from eighteen months to three years, with but little or no deformity.

While the disease is a local one in the beginning and may require no general medication, yet if needed, we should use tonics, alteratives restoratives, and narcotics, with plenty of good food and all of the fresh air and sunshine that can be utilized by the patient. The great principle of treatment is complete rest of the diseased joint, with perfect protection. Absolute rest on the back with complete fixation of the limb in a plaster cast put up in good extension for three or four weeks is the ideal early treatment.

If there is severe pain, Buck's extention may be substituted for the plaster cast, affording great relief to the patient.

By the end of the first month fever and other active symptoms

including pain, should subside. The patient should then be put on his crutches with a plaster cast, or one of the best forms of braces with which to keep up the necessary fixation and extension, and sent to live in the open air and sunshine, giving plenty of exercise to all parts of the body but the affected limb which is still kept at complete rest. This plan of treatment with plenty of good food should cure most of the young patients without deformity. But in a large majority of cases, the patients do not get proper treatment from the beginning, and consequently do not make good recoveries.

A small per cent. of young patients that have been neglected and a large per cent. of older patients that may have been properly treated terminate in abscess, followed sometimes by sinuses and frequently by mixed infection, not infrequently complicated by severe osteomyelitis and other complications, sometimes requiring operative procedure.

In the younger patients a good opening with arthrectomy, may terminate in a good recovery with a movable joint, while other cases may require an excision. With ankylosis, and sometimes in very severe cases especially among patients fifty years old or over whose systems are in a bad condition, amputation is conservative treatment.

SOME PHENOMENA OF TUBERCULAR INFECTION.*

BY WILLIAM PORTER, M. D., ST LOUIS.

The study of tuberculosis is a many sided proposition. It is not my purpose to attempt a full resume or to discuss at length any of its more important features, but rather to make certain suggestions which have been the outgrowth of daily contact with victims of this most interesting and universal disease. May I be pardoned if I omit statistics, encouraging as they are, or detailed description of the methods of limitation and plans of organizations which have already been so effective? My thought tonight is to speak of some of the phenomena of tubercular infection and possibly to make a few therapeutic suggestions as legitimate deductions.

Naturally the bacillus is the central point in most of the experiments and investigations concerning tuberculosis. To some it might seem that almost two decades of study had sufficed to learn all that is to be known of this organism, yet, I believe that we are only in the beginning of our lesson and that so far as specific antagonism is concerned we await the dawn. That the dawn is near at hand there is every promise even before the final victory. In Germany in 1890 the death rate per 10,000 of population was 28.11 and in 1902 it was 19.04. In England the death rate has been reduced 50 per cent. and

*Read before the St. Louis Medical Society April 7, 1906.

in some of our eastern cities almost as much. A recent report shows that in less than two decades there has been in Boston a decline of 50 per cent mortality[1]

It is then with new courage that we study some of the characteristics of tuberculosis and though the presentations may seem disconnected there is in them as presented an interdependency that may not be ignored. A few words as to the bacillus itself. We need not more than mention the different ways of conveyance, as dust, in globules of expectorated mucous or by food or by flies as shown by Lord in the Boston Medical and Surgical of a year ago. The vitality of the bacillus has been the subject of many experiments. Twitchell[2] found that dried tubercular sputum in a handkerchief, woolen blanket or on wood when inoculated would produce a tubercular lesion after 70 days. Koch[3] dried sputum at laboratory temperature for four to eight weeks and found it would produce tuberculosis in animals. Sawinsky as quoted by Twitchell found that sputum subjected to the ordinary conditions of the floor of a dwelling house preserved its virulence for over two months. Flick (*Med. News*, February 20, 1904), says "consumption may well be termed a house disease. The house is the place where the tubercle bacillus lies dormant in wait for its new host; it is the place where the new host gets his implanatation." While it is true that sunlight and air currents and heat extremes limit the life of the bacillus, yet it may be well to remember that under conditions not infrequent such longevity is possible.

A second observation is that the *number of bacilli is not indicative of the stage of progress.* At Mount St. Rose we divide our cases into three classes according to the evidence from physical examination. The three clinical stages are those usually given in the books. The divisions from the microscopical showing are these: one bacillus in a field, or only one found in several fields, is written down as in first class; several in a field as second class; an average of six places the case in the third class; from six to ten in the fourth; and a larger number, or "clump" of bacilli, places it in class five or five plus. Now it often happens that patients in the first or early stages clinically, are in class five or even in five plus from the bacteriological tests. Conversely, though this is more rare, advanced cases may show few bacilli.

It may happen that a great variation in number is found in the same patient at different times, without any physical evidence of change. Hence, I am of the present opinion that while as a diagnostic

[1] (Report of the committee Drs. Jackson, Otis, and Locke, appointed by the Suffolk District Medical Society to investigate the progress of the crusade against tuberculosis in the city of Boston, October, 1905).

[2] (Report first annual meeting National Association for Study and Prevention of Tuberculosis).

[3] (Bacteriology, Sternberg).

evidence the bacillus tuberculosis is valuable, it does not aid in determining the stage or location of infection, or the prognosis as to time and result. In a recent report, by Drs. Ravenel and Irwin, 3 sterile cases were found among 30 in which no bacteria in lung cavities were shown. The absence of bacilli in the early or closed stage will be referred to in speaking of early signs.

The routes of invasion are worthy continued investigation. At present the respiratory tract is by many considered the main channel, but with a larger opportunity for investigation than formerly I am convinced that many more pulmonary cases are directly infected through the lymphatic and blood channels than are recognized by the average physician. The phenomena of invasion by the bronchial route have been studied not only clinically but in their pathological sequence and to such an extent has this study served that it has until recently over-shadowed the other scarcely less important questions of infection along the lymph channels or around the arterioles and capillaries by the blood current.

Without dwelling on the bronchogenic development along the respiratory tract—which we all to some extent have followed, I would emphasize the value of infection through the lymph channels as a factor in the etiology of tuberculosis. Here again we find three methods by which the bacilli find their way into the lymphatics. First it is asserted by Behring who quotes Roemer that albuminous bodies may pass through the walls of the alimentary canal and into the blood and lymph unchanged in newly born animals but not in adults. Behring fed anthrax bacilli to adult guinea pigs and these passed through the alimentary tract without doing harm while eight day old guinea pigs similarly treated died quickly. Attenuated bacilli fed to young pigs were found in the blood. Ribbet (*Deut. Med. Woch.*, April 24, 1902) believes that most cases of pulmonary tuberculosis are hemetogenous that the bacilli pass through the pulmonary tissue into the lymph channels and to the bronchial lymph. From this point they are carried by the blood stream to the lungs, usually to an apex because of comparative local anemia and a retarded lymph flow which is due to hindered movement into the ossification of the first rib.

A most important recent contribution to the study of lymphatic infection is a paper presented to the Section on Laryngology at the fifty-fifth annual session of the American Medical Association by Dr. Edward B. Wood. After recording the results of his most interesting experiments made in the laboratory of the Pennsylvania Live Stock Sanitary Board and citing many authorities he concludes that "The tonsillar tissue of the throat, because of its peculiar anatomic construction and its topographical relations, is more liable to become infected by tuberculosis than any other part of the upper respiratory tract. In nearly all cases of advanced pulmonary phthisis the faucial

tonsils become inoculated. In about 5 per cent. of hypertrophied pharyngeal tonsils some form of primary tuberculosis will be found. Primary infection of the faucial tonsil is a rarer condition.

Tuberculous adenitis in the cervical lymphatics develops in the majority of cases from infection originating sometimes in the faucial tonsils, but more frequently in the pharyngeal tonsils. The tubercle bacillus is probably unable to pass through the tonsil without having first overcome the vital resistance of the tonsillar tissue.

The danger of systemic or pulmonic infection resulting from a tuberculous lesion in the tonsillar tissues of the throat is about equal to that of tuberculosis of the cervical lymphatics. The lesion to be expected as a resultant infection from the broken down glands of the neck is a miliary tuberculosis of the lungs. Further than this possibility, tuberculosis of the lymph glands of the neck is more dangerous than a localized tuberculous lesion in any other portion of the lymphatic system.

As illustrating this proposition I may briefly cite a case in our observation ward at Mount St. Rose. A woman of 40 has had for many months prior to admission tubercular infiltration of cervical glands of right side. Bacilli were found in the broken down structures, but consultation with several surgeons determined non-interference, because of the extent of the infiltration and tissues involved. At first there was neither physical nor microscopical evidence of tuberculosis involving the lung, though we made repeated and frequent examinations. Recently well marked signs have appeared at the apex although the lung is evidently as yet in the "closed stage," and no bacilli found in the sputum. I have little doubt but that they will be found.

The tonsils are more resistant to the action of bacterial toxins than ordinary lymphoid tissue. This latter proposition is also well set forth by Dr. Jonathan Wright, (*Medical News*, March 4, 1905) and its soundness will be the more readily admitted after reading Dr. Theobald Smith's essay, Some Problems in the Life History of Pathogenic Organisms (*Science*, December 16, 1904).

Auto-infection.—This topic deserves more extended notice. I believe it to be one of the most important chapters in the study of the symptoms and care of tuberculosis. Let me briefly call to mind that constipation (with inter-current diarrhœa) is found in most cases of pulmonary tuberculosis. It has been shown that bacilli in the sputum may safely pass the impaired gastric secretions, travel the course of the small intestine, and be found in the fecal accummulation in the colon and rectum, or may pass into the deeper structures or lymph or blood channels through an uninjured mucosa. It is not a far cry to the conclusion that reabsorption of bacilli with the products of fermentation and decay from the intestinal tract is a potent addition to

the primary infection, especially in children as before quoted from Behring and I am inclined to believe that the statement holds good with those of more mature age. That this is more than a hypothesis can, I believe be demonstrated. There is here a therapeutic suggestion which we try to make practical. In appropriate cases a high enema containing a small quantity of glycerin is given daily for a week. By that time the lower bowel is probably emptied of all scybalous masses. After that, the normal salt solution is used in quantities which can be retained. The exact form of treatment may vary, but the principle is kept in mind. The reduction of temperatures and, in many cases the improvement in assimilation following this part of the treatment certainly suggest cause and effect. The premises may be wrong but the conclusion is encouraging. The fact that other bacteria are factors in temperature increase in tuberculosis does not alter the deduction as to the value of the method.

Large doses of creasote are not indicated.—Following the adoption of the suggestion last mentioned, we have been willing to lessen greatly the amount of creasote and its substitutes. In fact, except with the idea of improvement of digestion and nutrition (and I confess my want of faith in this) the use of this class of remedies is almost forgotten in our treatment at Mount St. Rose where we have had over 800 cases of tuberculosis in three and one-third years. Certainly, large doses of creasote, guaiacol, and their carbonates, are not given. Here again I may be at variance with many of our best observers, but I predict that in another decade, very little if any of this class of remedies will be used internally in the treatment of tuberculous cases.

Early Sign of Infection.—One of the most valuable reports of the past twelve months is "The Report of the Committee on Early Diagnosis of Tuberculosis to the National Association for the Study and Prevention of Tuberculosis." This is a topic in itself and time will permit me to mention only a few points. The Committee lays great stress on symptoms and signs indicating a tuberculous infection during the closed stage: i. e. before caseification and breaking down of a tubercle and the appearance of bacilli in the sputum. The symptoms are early typical repeated though possibly slight hemorrhage, increased afternoon temperature and a hacking cough are suggestive but not positive proof.

More important are the early physical signs.—Among these are a retardation in the movements over the affected lung portion and a diminution of the excursions of the diaphram of the infected side shown by Litten's shadow. The use of the blue pencil to mark border line of dulness and points of asymmetry is strongly urged with exceeding care in percussion and the investigation with the stethescope. The very earliest auscultatory sound is a rough and slightly diminished respiratory murmur not to be confounded with the sharp puerile murmur of

increased function. The respiratory sound loses its smooth quality and (Sahli) becomes impure and roughened. This change is produced by slight inflammatory changes in the bronchioli the air passing over an uneven surface and slightly narrowed. It precedes the crepitant rale and all other physical signs.

Of tuberculin, the x ray, and the use of iodine salts to increase catarrhal symptoms, the committee says their value has not been demonstrated and a case will rarely be found in which they would add considerably to the information gained through other sources.

Posterior Lesions Are Most Aggressive.—Diminution of the percussion note, with harsh breathing and crepitation heard in the upper interscapular region, is suggestive of lymphatic infection and infiltration of the bronchial glands. The cases we have noted of this class run a much more rapid course than those in which the infection has been through the respiratory tract. It is true the premise is hard to prove, but the fact remains that our cases most difficult to control have been those in which the physical evidence was most marked in the upper dorsal region. I would again urge that no chest examination is complete without most careful interrogation of this region.

Extent of local lesion is not always a criterion of the general condition in pulmonary tuberculosis.—This may be truthfully said of many diseases, but it is emphatically true, I believe, in pulmonary tuberculosis. We find it so in lobar pneumonia, which is also a specific disease. It is true, likewise, in many conditions of pus poisoning and local infection. It is, therefore, no new proposition, but one that has not been given its full value in formulating our diagnosis and prognosis in this disease. An advanced pathologic state is not incompatible with fairly good general conditions. Such cases in spite of extensive tissue disintegration, may become chronic, the advance be checked, and the patient live out his expectancy.

A word as to *the relation of pleurisy to tubercular pulmonary infection.*—Where so many of recognized authority are at variance no one man has a right to speak dogmatically. Nothnagel says that "Tuberculosis of the pleura is almost exceptionally secondary and is most frequently associated with tuberculosis of the lungs or bronchial glands. Von Ruck (*New York Med. Jour.*, September 30, 1905) deducts from forty writers and his own experience as follows: 1.—The pleural cavities are readily accessible to bacterial invasion. 2.—The great majority of pleurisies with effusion which occur in otherwise healthy individuals are due to infection of tubercle bacillus. This is proved by autopsy findings, by methods of exact diagnosis, and by the subsequent clinical histories of the majority of persons who have been the subjects of such attacks. 3. There is ample evidence to indicate that the so-called idiopathic, dry pleurisies are likewise usually tuberculous. 4. The subjective symptoms of inflammation of the pleural apices of-

ten simulate those of myalgia or rheumatism. 5.—In every case of pleurisy, or of persistent pain in the chest or shoulder, which cannot be satisfactorily ascribed to other causes, tuberculosis should be suspected and a careful physical examination should be instituted to determine, if possible, the existence of a tuberculous process in the lungs, or elsewhere. 6.—Even if physical examination in such cases proves negative, the patient should be regarded as tuberculous until the contrary is proved, and should at least be kept under prolonged observation and reexamined from time to time. 7.—The application of these principles will often lead to an earlier recognition of tuberculous disease of the lungs, especially, and to the institution of treatment at a period which will in many cases secure to the patient most important advantages in his prospects for recovery.

In the face of such evidence it would be foolishness to raise a feeble negative. I know that I have seen cases of pleurisy with effusions that were not tubercular and that never became tubercular, but they may have been exceptions. With our present knowledge I should hesitate to say that the majority of cases of pleurisy become tubercular and Bowditch, Hanford, Barr, Fiedler and others place the proportion as no greater than one-third. If, however, to this one-third we add the number of cases complicating old tubercular lesions it will make a high percentage indeed for the majority of tubercular cases have pleuritic extension and infection.

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DISCUSSION.

Dr. D. S. Booth:—I would like to know the reliability of the tuberculin test.

Dr. L. H. Behrens:—I do not believe the tubercle bacillus in itself is fever producing of consequence. In a case I have seen during the past four years there has been very little afternoon temperature although as many as 200 bacilli have been found in each field. In another case showing every evidence of pulmonary tuberculosis very few tubercle bacilli have been found. In another case all the symptoms pointed to typhoid except the Widal test which was negative. A few days before the patient died an oculist discovered the tubercle on the retina yet at no time could the bacillus be found in the scanty sputum.

Phthisis pulmonalis is readily diagnosticated in its later stages but the aim today is to make a diagnosis before there is any demonstration of the bacillus in the sputum for when the bacillus is present the condition is then quite far advanced. The fever attendant is usually due to one of the other many cocci that are fever producing. Pleurisy as a rule, is of tubercular origin. Often in post mortems we can demonstrate pleurisy and yet the lungs or pleural membranes may not have any tubercular nodules in or on them. There are very few post mortems in which some adhesions are not found. The early re-

cognition of phthisis pulmonalis is urgent; it is in such diagnosis that we get results from treatment. A point brought out by the essayist should be well considered, namely, that formerly we believed phthisis was contracted solely by inhalation of the bacillus, but today study is also being given to infection through the gastro-intestinal route.

Dr. J. M. Brady.—Every case of apparently primary pleurisy should be carefully scrutinized and tuberculosis suspected for a great many of these cases owe their origin to the tubercle bacillus. Especially is this the case if there is a double pleurisy or a complicating pericarditis. In cases where we have long been unable to make a positive diagnosis of tuberculosis but in which the symptoms have been such that tuberculosis was suspected, the development of an apparently primary pleurisy will make our suspicions almost positive. It is difficult to demonstrate the tubercle bacillus in the exudate removed with the needle. The production of the disease in the guinea pig will not be successful unless a large amount of the fluid is injected the bacilli being so few. Of great value in establishing a diagnosis, as pointed out by certain German and French writers, is the presence of a large number of lymphocytes, while the predominance of the polymorphonuclear leucocyte would indicate some other condition.

Dr. Porter, in closing.—Dr. Tanquary has given us a resume of some special conditions that are very interesting. The tuberculin test is thought by some to be valuable but for five years I have not used it. Where there is any doubt it is better to remain in doubt caring for the patient in the meantime, than to imperil the patient's future by stirring up a latent tuberculosis. I would again emphasize the importance of knowing something about the closed stage and sterile cases. Before there has been ulceration or the throwing out of tubercle bacilli, there are certain significant signs of early infection. One is the roughened, localized bronchial sounds in the bronchioles with afternoon fever and a depression of temperature in the early morning. How many of us examine the patient posteriorly in testing for tuberculosis? Is it not true that we often fail in the test where we find the most important lesions? In two out of six examined today the lesions were only to be located posteriorly. As to weight, where you find gastric distension, vaso-motor disturbances, irregular heart action, etc., you will have loss of weight, but often you will find that the patient will increase in weight. I would rather see a patient gaining in heart rhythm and in general tonicity than in weight. I have had patients who were fifteen pounds heavier when they died than when they were admitted to the hospital.

SPINA BIFIDA.*

BY JOHN D. SEBA, M. D., BLAND, MO.

Spina bifida, as we understand it, is a congenital condition in which any part of the bony structure of the spinal column is absent, which allows the meninges to bulge and become distended with cerebral fluid; this is generally found in the lumbar and dorsal regions but the cervical, sacral, and coccygeal regions are by no means exempt.

Owing to the rarity of this condition and to the fact that not very many post mortems are held on very young cadavers, no cases of anterior spina bifida are on record; but that they cannot occur, or have never occurred, must not be asserted, and I believe that with a more diligent inquiry into the cause of death, such cases will be recorded.

Etiology.—The etiology of spina bifida is as yet not well known. It has been suggested that it is similar to, if not identical with hare lip and cleft palate; hereditary and maternal impressions have been mentioned as possible factors in the causation of spina bifida. Although I am a believer in hereditary tendency of certain conditions, and also believe in the theory that the mother may favorably or unfavorably, through the nervous system, impress her offspring, nevertheless I am unwilling to believe that hereditary or maternal impressions play any part in the cause of spina bifida. The study of embryology and biology, from a rational standpoint, have thrown much light on subjects previously not well understood, especially in congenital conditions such as that of spina bifida. Yet with all the knowledge at our hand, we very often cannot place the etiology at a point where we can say we know it all; much is yet to be learned on this subject, and it will probably be many years before a generally accepted theory will prevail. When finally this question shall be settled permanently we will probably find it due to misplacement of embryonic cells. This may be caused by intrauterine trauma, or an excessive amount of cerebro-spinal fluid such as we often find in hydrocephalous; that such an excessive amount of fluid should press the young bony structure apart and thus cause nonunion between these parts is easily imaginable. On the other hand an intrauterine trauma, such as the bending or twisting of the vertebral column of the embryo, may cause the same condition by pressing the vetrebral lamellae apart and thus also cause nonunion. That this is also a misplacement of embryonic, or cellular tissue is self-evident, but we must remember that there must also be a cause for the misplacement of these new forming tissues, and that this cause is not simply nature's fault but due to perversions not yet well understood.

Diagnosis.—It really would seem that the diagnosis of spina

*Read before the Missouri State Medical Association, Jefferson City, May 1906.

bifida would not be difficult, and as a rule physicians who have seen one or more cases, seldom err in diagnosis, but doctors who do not attend medical societies, or are averse to associate with other doctors very frequently fail to diagnosticate correctly when they meet with a case of spina bifida in their practice. I have seen cases of spina bifida that were not recognized as such, although examined by men who had practiced from ten to fifteen years. Others have mistaken spina bifida for hygroma, or teratoma.

A spina bifida is situated directly over (or in anterior spina bifida, if such should ever be recorded, directly under) the spine and is a soft tumor, composed of skin, meninges and cerebro-spinal fluid. The spinal cord, although it lies within the tumor proper, should not be considered any part of the tumor. As proof that the tumor contains cerebral fluid pressure will cause a bulging of the fontanelles. The size of the tumor is to a great extent, an indication of the extent of the bony lesion; a small tumor would as a rule indicate only a small opening in the vertebral column, whereas a large one would indicate a larger lesion. As usually found they vary in size from a quail's egg to a goose's egg, but may be many times larger. Sometimes we find that one or more of the vertabrae are absent, and then we will find that the tumor is very large. If such a condition is present in the cervical, dorsal, or lumbar region, the patient will in all probability show signs of paralysis below the tumor; but if in the coccygeal region, there will be no paralysis perceptible. When such extensive lesions are present above the lumbar region the life of the patient will be terminated in a short time, but if present in the coccygeal region, and the patient receives the proper surgical treatment, then we may expect good results.

Treatment.—The treatment of spina bifida heretofore has been surgical and non-surgical. The non-surgical consisted mostly of the expectant treatment in which various appliances have been devised to support the tumor; this was generally in the shape of a truss, to keep the protruding hernia in its place. That much harm has been done by such contrivances, there is no doubt in my mind. Ill fitting pads as generally constructed for this purpose do more harm then good. They have a tendency to prematurely rupture the skin, evacuate the cerebral fluid contained therein and cause consequent infection of the meninges and death. The best temporary dressing that can be applied is absorbent cotton, or plain sterile gauze. It is a fact that very small spina bifidas do get well under the expectant plan of treatment the bony aperture gradually closes, the skin curragating in folds resembling to some extent the convolutions of the brain. These are afterwards called teratomas, or skin tumors.

Another method of treatment is the injection method. Irritating substances, generally iodine, are injected into the tumor to set up inflammation and adhesion, and thus cause obliteration of the sack.

This no doubt originated from the custom, largely prevailing with some physicians, to treat hydrocele by the injection method. There is, however, a vast difference between a hydrocele of the tunica vaginalis and a meningocele of the spinal cord. A few cures are reported from this method of treatment. In my opinion these cases would have gotten well if the expectant treatment (letting it alone and let nature take its course) had been chosen. Personally I cannot endorse or sanction the injection of so strong an irritant substance as iodine into the meninges of the spinal cord. The only method of treatment must be either the expectant, or the radical surgical procedure. Surgical intervention at an early date, or better still, immediately after birth, promises the best results. It must be admitted that heretofore surgical interference has not been very successful. Some cases have been operated on which were almost hopeless from the beginning, wherein there were extensive lesions of the vertebræ and cord, with paralysis below the lesion. Such cases had just as well be left to nature. Other cases have proved fatal because the operation had been delayed too long. The literature on the subject as a rule advocates that we should wait until the child is two or three months old. This is in my opinion not very good advice. Those of us who have had experience in the amputation of superfluous fingers and toes, immediately after birth, know how well these little patients stand the operation; this is much easier done immediately than a few months afterwards. Another reason why we should insist on immediate operation is that at the time of birth, there is but little attachment beween parent and child. Parental love being much stronger when the child is a few months old than at the time of birth, parents will consent to an operation immediately after birth more readily than they would two months later. Furthermore the nervous system is not as well developed at birth as it is a few months afterwards, hence the shock to the nervous system is not as great from an immediate as from a delayed operation, nor is the operation as extensive as it will be afterwards. Spina bifida is a condition that grows as the child grows; we have nothing to gain by delay but have a great many things to lose.

Technique.—Faulty technique in the surgical procedure of spina bifida is also the cause of many failures. Heretofore surgeons have mostly tried to be too particular in their operations and have attempted to make end to end union of the different membranes of the cord; such a procedure is entirely too tedious and takes up too much time, and even if successful would have been better not done, as it fails to serve the purpose that was intended, i. e., keeping back the spinal fluid, Rapidity is an element that should be much desired and a spina bifida operation need not occupy more than a few minutes. The tumor is split open parallel with the spine, letting out the fluid, the edges are now held up away from the spine and all superfluous tissue is cut away.

The wound is closed with a continuous catgut suture overlapping the edges of the wound, a good deal after the fashion that a miller sews up a flour sack. Then the wound is painted over with flexible collodion, or some other substance that hermetically seals the wound, and at the same time restrains the leakage of the spinal fluid. As a rule little trouble will be experienced; union by first intention will be the rule provided surgical cleanliness has been observed. Small spina bifida can be operated on by local anesthesia, provided the operation is not delayed beyond a few hours after birth, but even if local anesthesia is not practical, a general anesthesia, is well borne by infants a few hours old.

Fig. No. 1.

Fig. No. 2.

Report of cases.—In connection with this paper I beg to report the following cases: Mrs. E. P., a primipara, gave birth to a female child, June 10, 1905. Labor was normal in every respect. Over the lower part of the spine, sacrum and coccyx, there was a very large tumor, larger than the child's head, which ruptured as the hips of the child passed through the vagina. Upon examination I found that the coccyx and part of the sacrum were absent, and that the tumor had its origin in the spine. At the point of rupture there was the glistening membrane so characteristic of spina bifida. As the sack was already ruptured no pressure could be made, to prove the connection between the contents of the tumor and the fontanelles. Fig. No. 1 is a photo-

graph of this child taken an hour after it was born. I am sorry to say that a back view taken of this child was spoiled and cannot be reproduced here; this back view showed the case to much more advantage.

The child was taken to my office, when about three hours old, and under chloroform the tumor was split wide open, all superfluous tissue cut away, the edges held together, and united them with an overlapping catgut suture. The wound was painted over with flexible collodion, thus hermetically sealing the wound. Shock was counteracted just as you would in older patients. Although this wound was near the anal orifice, there was no infection and we got union by first intention.

Fig. No. 2, is a picture of this child taken several months later

Fig. No. 3.

Fig. No. 4.

and shows a fat, plump and healthy child. By close inspection of the picture, the scar may be seen on the back.

My friend Dr. R. L. Johnson, of Rolla, Mo., had a similar case. Two views; front and side, of this unfortunate child are presented here (Figs. 3 and 4). This child did not receive any surgical treatment and died when about two years old. One can readily see the similarity of these cases by looking at the pictures.

Case No. 3. Miss E. H., about 12 years old, was born near Washington, Mo. Had a tumor on the lower spine, sacrum and coccyx, filled with fluid. The child was taken to several doctors, none however venturing a diagnosis. All refused to operate. The sack or tu-

mor gradually drained itself, became atrophied, and folds and nodules appeared, to some extent resembling the convolutions of the brain. I have examined this case several times, and as the tumor is considerably in the way, I will in all probability operate in the near future.

Dr. Paul Y. Tupper, of St. Louis, reported a case in the September issue of the *Interstate Medical Journal*, 1905, with two illustrations. Inasmuch as these illustrations represent almost an exact image of my case, of which I have so far been unable to get a photograph, I have taken the liberty of reproducing them here (Figs. 5 and 6). You will notice that the picture is suggestive of cerebral origin. In Dr. Tupper's case the coccyx and part of the sacrum also were absent.

Fig. No. 5.

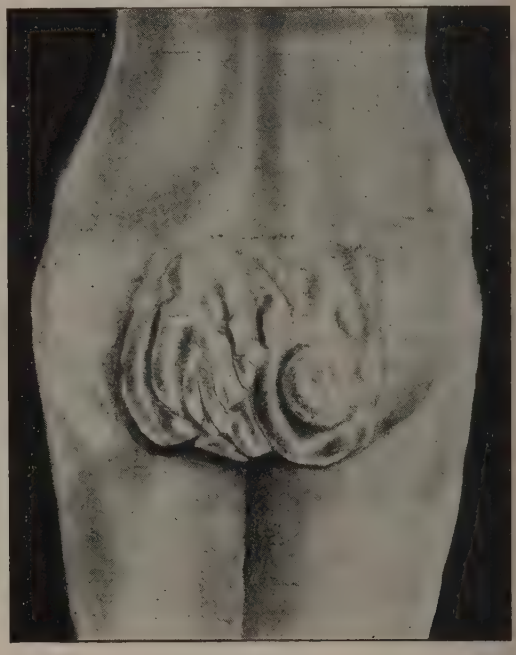

Fig. No. 6.

Dr. Tupper believed his case was not of spinal origin but thought it originated from the colon, and called it "enterocyst". The cases are not reproduced here, with a view of disagreeing with Dr. Tupper's diagnosis. I believe however that the x-ray would cast much light on the subject in arriving at a correct understanding of the exact pathological condition.

If by reading this paper others may be induced to make a deeper study of this to me interesting condition, then I shall have been amply repaid for the time and labor spent on its preparation.

DISCUSSION.

Dr. T. C. Boulware, Butler: Spina bifida, as I understand it is a congenital deformity, consisting of a space or gap in the posterior portion of the spinal column. Through this space or gap, the membranes of the cord protrude and form a tumor. This is called spina bifida. If you will press upon the tumor it will disappear, but immediately returns upon removal of the pressure. It is laid down as among the most fatal diseases we have. The treatment has been very unsatisfactory; one author will recommend one thing, and the next will deny it, so that it is hard for us to determine what is best to do. This opening into the spinal canal is sometimes very small, and it sometimes becomes closed between the canal and the sac. You can cure this by operation. If there is a broad base to the tumor,however,the result of the operation is generally fatal. Some recommend operation,some do not. Some operate as for hernia. In surgery there are about three things that should control, first: How to operate; second, when to operate, and third, when not to operate. I think it is good surgery for us never to operate unless we feel confident we are going to benefit the patient. It seems to me that it would be dangerous to operate when the opening is broad and when the posterior portions of several of the vertebræ are missing; but when it is small, (determined by pressing upon it—and it does not go in readily—) that is one evidence that the opening is very small, and perhaps the communication between the tumor and the canal is entirely shut off. In operating, I believe the *modus operandi* is like that in cases of hernia. Most of these cases live five or six months. They generally die in convulsions. There are instances, however, where they get along up to fifteen and twenty years, but usually they have some trouble about the spine. I think that before we can hope to cure any very considerable portion of these tumors (with broad bases)—we will have to learn a good deal more about this trouble than we now know.

Dr. Scott P. Child, Kansas City: In the very earliest embryonic development it is possible that there is some injury by which certain cells are displaced and there will then be a lack of development or abnormal development. Dermoid cysts are very common along with spina bifida. I have a case in which the child is perfectly normal in every way except along about the juncture of the third and fourth lumbar vertebræ where there is a small nævus from the surface of which fine hair is growing; there is no tumor external to the surface of the skin. The child had perfect control of the extremities until about the eighth month and by the ninth month it was discovered that a complete paraplegia had developed. On examination it was discovered that upon pressing upon the nævus and moving it from side to side there was marked contraction of its center showing evidence of communication with the spinal column or deeper structure of the cord. In

these cases we nearly always find that there is a group of symptoms. In this particular case after the ninth month the paralysis partially disappeared. For a period of a week or ten days there will be scarcely any motion of the lower extremities, and then there will be some slight movement of the legs. Great tenesmus exists on defecation. My diagnosis is spina bifida occulta. Spina bifida is a condition in which operation should be resorted to. The Mayos report two operations in the last year and two cures. Chas. Mayo advises operation in every case. One important point is drainage of the spinal fluid into the subcutaneous areolar tissue by running the sutures subcutaneously. This establishes a means of equalizing pressure thus preventing the common cerebral disturbances.

Dr. Seba, in closing: I desired to bring out the fact that very young infants stand surgical operations well and the sooner they are treated surgically the better. Heretofore it has been the method not to operate when we should have operated. I also wanted to emphasize that coccygeal tumors arising from the coccyx should be classed as spina bifida.

Note: The patient died September 1, 1906, from peritoneal tuberculosis believed to have been acquired from tuberculous cow's milk. A further report will be made on the tuberculous condition.

THE TREATMENT OF APPENDICITIS OTHER THAN SURGICAL.*

BY W. S. ALLEE, M. D., OLEAN, MO.

I have three reasons for writing on this much hackneyed subject. First, to defend country doctors against the unjust criticism so often heaped upon them by surgeons for not advising an early operation in appendicitis. Second, to give some reasons why, in my judgment, medical treatment must and should have a place in the treatment of this disease. Third, to arrive at a consensus of opinion, if possible, as to what the best medical treatment may be.

That appendicitis is a surgical disease under conditions of choice is perhaps not questioned by those most competent to speak. I am convinced that under ideal conditions an early operation, (as soon as the diagnosis is made) is the best treatment, but whether these conditions can ever be had in large sections of our country is extremely doubtful. I practice in a territory one hundred and fifty miles from a surgeon who makes any special pretensions to operative skill in abdominal surgery.

There are many doctors of good skill and mature judgment in this territory, who are capable of performing most of the recognized oper-

*Read before the Gasconade-Maries-Osage Medical Society, October 26, 1906.

ations in surgery, but no one of them claims to possess the special skill so essential to insure the best results in this class of cases, because this is only attainable by a large personal experience in abdominal surgery. I doubt whether an operator devoid of this experience can show any better, if as good results, by an early operation in every case as may be had by the best medicinal treatment. Personally, I do not feel warranted in operating except in cases where conditions imperatively demand it, nor do I know of a neighbor who has the skill acquired by personal experience that could show results which would justify me in calling him to do this work for me. As a rule, to which there are few exceptions, my patients have not been able to pay for the services of a competent surgeon to visit and operate at their homes, or to pay travelling expenses, hospital fees and a modicum for the operator's services in the city. In an experience of thirty years, I can barely recall half a dozen cases that I have treated in persons who were amply able to pay for the services of a good surgeon and other necessary expenses incident to an operation for appendectomy.

Again it is not every one who will submit to an operation in the first forty-eight hours of an attack, even where conditions can be made favorable and the physician advises it. The custom is to discuss this question as though the physician could have his way about the treatment, and his failure to act for the best interest of his patient as being evidence of his incompetency and deserving condemnation. The country practitioner knows that this is a "condition and not a theory which we have to meet." And we should therefore study the conditions and determine if possible, what line of treatment will give the best results under such circumstances as must govern our choice of a plan of action.

It means nothing to me to be told that a few eminent surgeons can show a mortality of 2 per cent. or less by early operative treatment, as compared with 10 to 15 per cent. of deaths under the various plans of medicinal treatment. I have to deal with that very large class of patients who are unable to avail themselves of that superior skill.

I think it unwarrantable, and in very bad taste, for the surgeon to show so little respect for the opinions of physicians when they essay to discuss the medicinal treatment of appendicitis. Their opinions as to results in medicinal treatment are formed largely from what they see in the most unfortunate class of cases, which constitute from 5 to 10 per cent. of the whole number of cases treated by the physician, the 90 per cent. who recover without complications having had no occasion to consult the surgeon.

We must admit that there is a wide divergence in the views of physicians as to what plan of treatment or management other than operative gives the best results, and this is an additional reason why so little credence is given to the supposed beneficial results from medicinal treatment in certain quarters. Here as in the treatment of most

diseases we can follow no universal rule, each case should be carefully studied, and "the man not forgotten while we are palpating his appendix."

First I would advise perfect rest in the recumbent position.

It is also advisable to withhold all food, as digestion is greatly impaired and little good can come from feeding while much harm may be done. We know the conditions are ideal for fermentation and resulting gaseous distention, provided the material is supplied the stomach, and will add greatly to the discomfort and danger of the patient.

While the active disease process is confined to the appendix or its immediate connections, a purgative is perhaps beneficial, and my preference is for one grain doses of calomel every hour until 8 or 10 grains shall have been taken and unless free purgation results, follow with half ounce of rochelle salts every three hours until the desired result is attained. After unloading the bowel, provided all food is withheld, I can see no good reason for the use of purgatives for the next three to five days. I can understand how much harm can be done by unduly stimulating peristaltic action when rest is the prime indication. If there is considerable local peritonitis there will be muscular rigidity as a result, which will greatly impede, if it does not prohibit the action of purgatives. An attempt to crowd the stomach under such unfavorable conditions always results in failure and adds greatly to the patient's distress and danger.

Under such conditions the so-called Ochsner treatment is by far the most satisfactory in my estimation. The stomach is to be washed out if it is partially loaded with indigestible substances, as shown by the material vomited, and the lower bowel may be unloaded by an enema, if it is deemed necessary in order to relieve the griping pains that rsult from the efforts of nature to dislodge offending matter. The stomach and lower bowel having been emptied, all food and water should be prohibited and no medication except by hypodermic administration. I forbid the use of any kind of food or drink from three to five days, when if the active stage is quieting down, water and small quantities of liquid food may be given.

The object is to prevent fermentation and tympanites by keeping from the stomach such agents as are active or passive in their production, and to arrest peristaltic action with the hope of localizing the inflammation, and in the event of pus formation, to have the abscess walled off or circumscribed by adhesive lymph, thereby preventing a general peritonitis.

This is substantially the treatment recommended by Dr. Ochsner in those cases where peritonitis has developed from appendicitis and the patient is not in condition to get the best result from immediate operation.

Formerly I had great faith in the beneficial effect of purgatives in

this disease, believing that my patients usually improved after free purgation, but I now know that in all but the mild cases my purgatives did not act until the patient was improving, in other words the action of the bowels was the result of the improvement rather than the cause. There being less inflammatory action, the normal peristaltic action is resumed because the muscular spasm is relieved, thereby favoring or permitting the customary effect of purgatives, instead of the reversal of peristalsis and vomiting that is almost sure to occur after their use while the active stage of inflammation is present.

The pain, which is at times almost unbearable, may be relieved by local applications of ice, or by the use of hot applications by means of the hot water bottle or flannel cloths wrung from hot water and applied over the painful area. Where local applications will not afford relief, morphia should be injected hypodermically, in one-fourth grain doses, repeated every hour until pain is relieved. This should not be repeated except it is urgently indicated for the relief of pain. When thus used, I cannot understand where there is valid objection to it. Its use is condemned, as I know, by most surgeons and by a few general practitioners, but the reasons given for withholding it apply rather to its abuse than its proper use. The statement is sometimes made that, to give morphia in appendicitis is criminal. This is in my opinion an exaggerated and silly statement, wholly unwarranted by the experience of a large number of competent physicians. No sensible practitioner would narcotize a patient now under the belief that he was curing him of his disease, nor would he give morphia in sufficient doses to mask the symptoms of his general condition.

A few years ago I attended a meeting of The Missouri State Medical Association at Hannibal. A St. Louis Surgeon of no mean ability who was also attending the meeting, was attacked with a severe pain one morning about 2 o'clock, and he believed it was caused by appendicitis. His first cry was for morphia, sending his roommate at this unseemly hour to get a hypodermic syringe and tablets of morphia, and they were used with good effect.

At that time he was teaching clinical surgery in one of the St. Louis schools, and on the return trip to St. Louis laughingly related his experience to the late lamented Dr. A. B. Shaw and myself. He stated that it had been his practice for years to condemn the use of morphia in appendicitis as little less than criminal, and yet when he believed himself a victim of the dread malady, his first cry was for the relief of the pain by a hypodermic injection of morphia.

My contention is not, that morphia is curative and ought to be used as a routine treatment, but that its use when restricted to the relief of pain is not only justifiable but is commendable.

It has been my desire to adopt such treatment as seemed most rational under the circumstances which are of necessity controlling factors in a choice of plans. Past experience has convinced me that my sins have been those of commission ,rather than of omission.

I have not regretted so much my failure to have done more, surgically or medicinally, for the fatal cases that have fallen under my care, as that I might better have left undone some things which time has convinced me are ill advised. One of these is the persistent use of purgatives in those cases where nature had attempted to localize the active trouble by arrest of peristalsis.

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EDITORIAL.

THE NEWSPAPERS AND THE PATENT MEDICINE FRAUD.

Referring to the series of articles in *Collier's Weekly* by Mr. Samuel Hopkins Adams, the *Literary Digest* (October 13th) marvels at the scarcity of newspaper comment upon these articles.

To us the reason for this silence is patent for it is an undisputed fact that the patent medicine manufacturers expend enormous sums annually advertising in newspapers. But how does this affect the "freedom of the press"? The answer is very simple—Money. The manufacturer gives to the newspaper a contract to publish his advertisement and as part of that contract there is a clause which prohibits the newspaper from publishing anything "detrimental to the interests of the advertiser."

That is why we have seen no newspaper comment upon the exposures so graphically depicted by Mr. Adams; that is why the people are denied knowledge of the fact that they drink bad whiskey, become drug fiends and jeopard their lives when they swallow the stuff advertised to cure their ills; that is why the medical profession is refused the aid of this powerful weapon in its effort to subvert the evil of that curse of the American people, the patent medicine fraud. The United States Government has prohibited the sale of peruna among the Indians because of its intoxicating properties. Did the newspapers announce this to the general public? No. That would be "detrimental to the interests of the advertiser." Thus does the business office seal the lips of the editors of the paper and contravene its usefulness to the people—for money.

It seems incredible that there should be any subject of public concern upon which our newspapers would fail to comment freely, fearlessly and intelligently. The beef trust, the insurance scandals, the

bridge trust, the ice trust, the oil trust, the so-called milk trust, all have been discussed without let or hinderance. But these people do not advertise in newspapers. The patent medicine fraud—the great American *fraud*—is untouched by that greatest exposer of frauds, the press. With full publicity in the newspapers, how soon would the people cease doping themselves with whiskey, cocaine and morphine. And that horde of fakers who declare they can cure cancer and consumption, restore hearing to the deaf, make the blind see and the lame walk, would soon cease to flourish in our midst. But the press is muzzled, gagged with a bar of gold.

If the damage were limited to the purse of the gullible it would not be necessary for us to antagonize the sale of the stuff, but it weakens them mentally and physically. Nor does it stop with the individual himself but it warps the mental growth and dwarfs the physical development of his offspring for the reason that the victim, innocently at first and later through the force of the habit, becomes its slave. And, more's the pity, without knowing the danger. But the manufacturers know it.

We hope that soon we shall be strong enough to drive out these quack-salvers who grow rich by wringing dollars from the sick and the afflicted, and give in return a large bottle of fraud with a big collection of lies. If our organization is worth anything it should begin to make its influence felt. Every candidate for the legislature should know that the county medical society in his district is a unit for him if he will support the measures introduced by the medical profession, but determinedly and eternally against him if he oppose those measures or does not support them. Then we shall obtain those laws which we must have before we can protect the public against devastation, disease and the death, the results of its own ignorance.

COCAINE AND THE ANTI-NEGRO RIOT IN ATLANTA.

The many interpretations of the causes of this, the latest crime against peace and order in a community, were so many-hued by distortions due to racial prejudices or party spirit run riot, that the mind fairly reels before the avalanche of overheated, misdirected magniloquence. Newspapers of the first order and distinguished weeklies and monthlies whose usual tone is one combining cool judgment with a stoical philosophy, seem to have vied with each other in fierceness of denunciation of the mob spirit or in exhultant joy resulting from justice having been meted out to black offenders.

In all the heated discussion which we have heard or read small mention, if any, is made of the real offenders of society—the cowardly and ignoble element, unfortunately white, which for gain panders to the mentally and morally stunted black to further dwarf his low morality

by putting within easy reach a drug upon which the laws of every state in our Union should place an embargo unless prescribed by reputable physicians. That the authorities at Atlanta are supine as regards the sale of cocaine, and that all sorts of men who would like to prey on society in other cities but are prevented from doing so by the stringency of the laws, congregate in communities where supineness gives them opportunities of making money, are facts known to the thinking part of the laity. But though the foregoing is so well known that its mere repetition is a twice told tale the elemental truth of the why and wherefore of the ungovernable sexual passion of the morally deficient negro as was evidenced in the attacks on white women in Atlanta, has been overlooked in all the secular press and magazine notices that have come to us. Dr. W. G. Moore in his excellent oration "The Possibilities of Medical Education," read at the annual meeting of the Missouri State Medical Association, July, 1904, said:

"An intelligent and reliable young man who traveled in the South for one of the wealthiest wholesale drug houses in St. Louis, told me that certain drug stores were known as 'dope stores' because of their enormous sale of morphine, cocaine and similar remedies. These are dispensed over the counter without a prescription to any irresponsible white or negro man or woman. Who knows how many of the fiendish crimes that are constantly being perpetrated are due to this shameless practice?

"The millionaire proprietor of this same wholesale firm instructed his young salesman to look after the 'dope stores' especially and spare no effort to outbid his competitors for their patronage."

Although these are burning words their import makes necessary their quotation as applicable in our arraignment of unscrupulous druggists who, unhampered by law, wittingly and for gain are guilty of a most dastardly crime against the public.

Authorities in psychiatry are one as to the cocaine habit causing hallucinatory confusional insanity. The low mentality of the negro would appear to us excellent soil for the development of this mental disorder, especially when subjected to a toxemia following the abuse of cocaine.

A. C. Benson, in a recently published life of Rosetti, gives the following harrowing account of the poet while under the influence of chloral: "But his painful hallucinations continued to beset him. Whether he was tricked by his own fancy, or merely misinterpreted ordinary sounds is not clear, but he was often under the impression that cabmen and other strangers insulted him; airy voices taunted him with epithets of intolerable ignominy; even a thrush which sang insistently in his garden was believed by him to have been trained to ejaculate terms of obloquy to annoy him." How much greater must the hallucinations be in the morally purblind and mentally deficient negro when the noxious qualities of cocaine play havoc with his primitive mind.

With these dicta before us, we feel justified in demanding the

strong arm of the law to stop at once the nefarious practices of a number of men whose despicable means for making money are responsible for outrages committed against innocent women by an unfortunate class of men of a mental status, honeycombed with superstition, crass ignorance and uncontrollable erotism.

TWENTY-FIFTH ANNIVERSITY OF JACKSON COUNTY MEDICAL SOCIETY.

On Thursday evening, October 18th, the Jackson County Medical Society celebrated the Twenty-fifth Anniversary of its present organization.

This society was established in Kansas City in 1874. It remained dormant from 1878 to 1881 at which time it was re-organized on the second of December. The officers for 1881 were:—President, C. D. McDonald; vice-president, Joshua Miller; secretary and treasurer, Charles W. Adams, all now deceased.

The celebration was in the form of a banquet at the Coates House, in Kansas City. The committee in charge of the banquet was composed of Doctors E. von Quast, C. B. Hardin, Max Goldman, A. E. Hertzler, and J. N. Jackson.

The guests of honor were the ten living charter members of the society, namely:—Dr. N. A. Drake, Dr. C. A. Dannaker, Dr. G. W. Davis, Dr. A. A. Freyman, Dr. J. D. Griffith, Dr. J. T. Mitchell, Dr. J. C. Rogers, Dr. E. W. Schauffler, Dr. Flavel B. Tiffany and Dr. John Wilson.

We congratulate Jackson County Medical Society in rounding the quarter century mark of its existence. Ever standing for all that would subserve the best interests of the profession in its own county as well as throughout the state the members in Kansas City and Jackson County have set an example for progressive, earnest work. The remarkable growth of Kansas City as a commercial center has found its medical men always abreast of every advance, her physicians occupying a prominent place at the front of any movement that stood for progress and taking the initiative in every reform which promised improvement in the moral, sanitary or hygienic condition of the city.

In the medical affairs of the state the physicians of Jackson County have devoted their time and their energies to the welfare of the organization with zeal and vigor and without their help much that has been done could never have been acomplished.

With a membership of almost 300 they will be able to do more in the future than they have done in the past.

Again we congratulate the members of Jackson County Medical Society.

DR. DRAKE A CANDIDATE FOR THE LEGISLATURE.

Dr. N. A. Drake, of Kansas City, is a candidate for the state legislature.

Jackson County Medical Society, with characteristic energy, has instituted a warfare against quacks and charlatans and we are pleased to know that one of her members is in the race for a seat in the legislature. He has the unanimous support of the county medical society. Without doubt every doctor in the county will support Dr. Drake's candidacy and we hope he will be elected.

DEKALB COUNTY MEDICAL ORGANIZED.

The latest addition to the list of County societies in affiliation with the State Medical Association is that of DeKalb County. This society was organized by Dr. W. E. McKinley, Councillor of the 6th district.

The officers elected were Dr. H. P. Yeater, President, Dr. J. C. Quinn, Vice-President, and Dr. R. A. Evans, Secretary and Treasurer. The following are the charter members: H. P. Yeater, Maysville; J. C. Quinn, Clarksdale; W. J. Clark, Maysville; E. R. Stroup, Weatherby; R. A. Evans, Amity; L. A. Richey, Fairport.

LEWIS COUNTY ORGANIZED.

Just as we are going to press we learn that Dr. H. J. Jurgens, Councilor for the second district, has organized Lewis County with twenty charter members. The second district is now solidly organized and we congratulate Dr. Jurgens and the physicians of Lewis County. A list of the officers and members will be published in our next issue.

The following physicians have recently made application for membership in their respective county societies.

Altham, A. G.....Metz.
Ammerman, I. W.....Nevada.
Ash, C. O.....Moberly.
Bailey, S. M.....Elsberry
Bankhead, C. L.....Paynesville
Barnes, C. E.....Mountain Grove
Barnes, W. S.....Pilot Grove
Barnes, W. T.....Pilot Grove.
Bartlett, E. M.....Clarksville.
Bartlett, J. W.....Clarksville.
Bast, Lee .....Naylor
Beatie. Wm. R.....Rogersville.
Bennie, W. D.....Nayton.
Biesemeyer, L. F.....Westphalia.
Blackledge, H. I.....Commerce.
Blue, A. B.....Hannibal.
Bohning, A. H. P.....Lincoln.
Bollinger, Wm. H.....Seymour.
Bowles, S. A.....Westphalia.
Brooks, J. M.....Goldencity.
Brown, J. C.....Lewistown.
Brown, J. O.....Wright City.
Bruton, L. D.....Hartsville.
Bruton, T. S.....Seymour.
Burgwin, A. B.....Fayette.
Byrns, R. M.....Frankford.
Caldwell, C. W.....Slater.
Callahan, R. G.....Luray.
Campbell, F. H.....Morrison.
Carr, G. M.....Marquade.
Chambers, J. C.....Shell City.
Chandler, J. J.....Lutesville.
Cole, Paul E.....Steffensville.
Cook, J. N.....Advance
Crumley, A. C.....Wyanconda.
Davis, J. D.....Louisiana.
Diggs, J.....Hawkpoint.
Dougherty, H. U.....Mt. Grove.
Dreyfus, J. W.....Louisiana
Dunlop,H. E.....Canton.
Dutton, C. K.....Moberly.
Edwards, J. C.....O'Fallon.
Ellery, W.....LaGrange.
Ellery, W. L.....LaGrange.
Evans, E. E.....Fulton.
Farmer, A. J.....Hartsville
Ferguson, A. D.....Auxvasse.
Ferrell, C. A.....Hannibal
Florence, T. S.....Marshfield.
Ford, W. W.....Gordonville
Foster, G. F.....Memphis.
Frame, C. N.....Ewing.
Fuson, J. A.....Mansfield,
Gallemore, H. J. M.....Lexington.
Givens, H. K.....Fayette.
Glahn, G.....Palmyra.
Gray, Amos D.....Atlanta.
Goeslin, P. A.....Luray.
Gooch, W. H.....Elmer.
Gove, H. S.....Linn.
Guthrie, J. F.....Golden City.
Haase, Freeman.....Revere.
Haden, J. W.....Plevna.
Hampton, Z. M.....Centralia.
Hangler, A. G.....Clarence.
Hardin, G. S.....Marshall.
Hardin, W. R.....Louisiana.
Harris, W. E.....Oran.
Hayes, O. B.....Centralia.
Hemphill, W. A.....Elsberry.
Hereford, R. .....Louisiana.
Hetherlin, T. G.....Louisiana.
Hickerson J. T.....Centralia.
Highfill, M.....Marshfield.
Hinson, C. A.....Revere.
Hogg, Garrett.....Ardmore.
Hubbard, J. M.....Mountain Grove.
Hulen, J. C.....Centralia.
Hume, J. R.....Doniphan.
Humphrey, B. F.....Hurdland.
Humphrey, H.....Locust Hill
Hunter, L., Jr.....Clifton Hill.
Irwin, Thos.....Moberly.
Jacklett, J. A.....Rutledge.
Jackson, J. D.....Herndon.
Jackson, B. Y.....Palmyra.
James, E. F.....Marshfield.
Jarvis, W. M.....Slater.
Jeksi, Z. C.....Nevada.
Jett, J.....Linn.
Jones, J. T.....Linn.
Jose, J. E.....Belle.
Justice, W. H.....Lancaster.
Kampschmidt, A. W.....Columbia.
Keller, J. H.....Glenwood.
Kennedy, J. J.....Frankford.
Keiling, F. U.....Elsberry.
Knight, G. R.....Benjamen.
Knox, J. A.....Whiteside.
Kraft, A. J.....Augusta.
Lane, G. G.....Sprague.
Lane, I. R.....Mt. Grove.
Lewellen, C. P.....Ashburn.
Lissock, H. M.....Lexington.

Little, J. B.....Norwood.
Littlejohn, Wm. .....Worland
Locker, G. E.....Iantha.
Lowry, J. Z.....Clifton Hill.
McCutchan, G. L.....Canton.
McGee, C. P.....Fayette.
McGlasson, T. F.....Lewistown.
McKim, H. W.....Labelle.
McLean, T. A.....Higginsville.
McReynolds, U. R.....Knox City.
Marchand, J. B.....Monticello.
Mayfield, S. A.....Advance.
Miller, T. U.....Sikeston.
Mitchell, R. A.....Clark.
Morris, W. J.....Edina.
Newton, F. H.....Elmer.
Norman, R. M.....Ava.
Orear, W. C.....Marshall.
Ott, Chas. W.....Higginsville.
Owens, H. I.....Fulton.
Owens, N. O.....LaGrange.
Owens, S. P.....Moberly.
Paxon, C. E.....Hannibal.
Paxton, G. L.....Cyrene.
Payne, N. S.....Lexington.
Pearson, D. M.....Louisiana.
Pendleton, T. O.....Pilot Grove.
Perry, A. A.....Williamstown.
Petty, J. W.....Rutledge
Phelan, J. T.....Marshall.
Pierce, Don.....Newark.
Piper, C. E.....Slater.
Pollard, W. H.....Eolia.
Powell, C. E.....Elsberry.
Powers, C. E.....Amoret.
Prewitt, G. E.....Hawkpoint.
Primm, N. B.....Deerfield.
Psey, J. J.....Naylor.
Rabenau, Wm. J.....Fo[illegible]erson.
Raines, J. D.....Maywood.
Rambo, J. H.....Glenwood.
Ramsey, A. J.....Walker,
Ramsey, R. L.....Advance.
Rebo, T. A. S.....Alexandria.
Reese, H. S.....Wayland.
Reid, D. W.....Slater.
Rickhoff, A. H.....Chamois.
Rickhoff, H. L.....Augusta.
Riggs, J. M.....Columbia.
Ringen, A. H.....Sweet Springs.
Rodes, W. R.....Mexico.
Rogers, R. M.....Mansfield.
Roselle, T. A.....Palmyra.
Royston, W. P.....Harwood.
Ryan, R. A.....Norwood.
Sanders, C. A.....Marble Hill.
Sanford, S.....Palmyra.
Sanfos, F.....Portage Des Sioux.
Sayers, J. S.....Rogersville.
Schofield, R. B.....Lewistown.
Selby W. H.....Moberly.
Shafer, R. R.....Panama.
Shafer, W. W.....Sweet Springs.
Shanks, C. O.....Canton.
Silverstone, H. E.....Lexington.
Smith, C. A. .....Annada.
Snoddy, S. H.....Slater.
Story, J. H.....Clarksville.
Stouffer, R. W.....Napton.
Stuckert, Otto.....Whiteside
Talbot, C. W.....Nevada.
Taylor, J. W.....Huntsville.
Terrill, W. P.....Huntsville.
Terrill, W. R.....Clifton Hill.
Thomin, G. F.....Williamstown.
Tilt, J. C.....Mountain Grove.
Toalson, G. C.....Mexico.
Thompkins, Junius,.....Canton.
Townley, W. D.....Chamois.
Treadway, W. W.....Clarksville.
Trimble, Eli.....Seymour.
Unsell, J. B.....Eolia.
Vanoy, L. D.....Norwood.
Wallace, E. J.....Centralia.
Walters, F. E.....Bowling Green.
Warren, J. T.....Boston.
West, C. A.....New Cambria.
White, M. S.....Lingo.
Willer, I. H.....Louisiana.
Williams, J. H.....Hume.
Williams, W. H.....Wainwright.
Willis, H. T.....Shelbina
Wilsey, A. R.....Hurdland.
Wilson, R. E.....Labelle
Wiseman, L. P.....Monticello.
Wregers, T. L.....Flint Hill.
Yeager, J. B.....Memphis.
Yount, J. H.....Sikeston.
Young, J. A.....Wyaconda.

[If there are any errors in spelling of names, please notify the Editor at once.]

COUNTY SOCIETY NOTES

BENTON COUNTY MEDICAL SOCIETY.

At the regular meeting held in Warsaw on October 9th the following officers were elected for the ensuing year:—President, E. L. Rhodes, Lincoln; vice-president, S. O. Davis, Warsaw; secretary and treasurer, W. G. Jones, Lincoln; delegate, Marion Dillon, Fairfield; censors, G. A. Greeson, J. H. Walton, and S. O. Stratton.

Doctors Curl and Dillon were elected to membership.

This being the annual meeting no scientific matter was presented but a number of papers are promised for the next meeting.

The interest in the society and its work is growing steadily. There was a general discussion on methods for extending the work of the society. Every member pledged his help and influence to make the work of the society for the coming year more effective than in any previous year.

The next meeting will be held at Lincoln, January, 1907.—W. G. Jones, M. D., Secretary.

CASS COUNTY MEDICAL SOCIETY.

To the Editor:—In behalf of the Cass County Medical Society its secretary sends thanks for the very commendatory special mention in the September issue of the Journal of the good work our association is doing.

G. W. Farrow, Prest.
W. F. Chaffin, Secy.
M. P. Overholser, Councilor.

At our September meeting the following program was rendered, each one responding with a well boiled down scientific paper and spirited discussions followed their reading: "Chloroform in Labor," by Dr. T. W. Adair; "Ear Ache," by Dr. A. R. Elder; "Puerperal Sepsis," by Dr. R. H. Burney; "Intestinal Antisepsis," by Dr. R. P. Yeagle.

Dr. H. S. Prentiss made his report as our representative at the meeting of the state committee on Public Health and Legislation, held in St. Louis, July 10th.

At the close of the meeting there was such a heart to heart handshaking that any stranger happening upon the scene might have mistaken the manifest good cheer to be the result of an old-time Methodist class meeting.—W. F. Chaffin, Secretary.

HOWARD COUNTY MEDICAL SOCIETY.

The society met in the office of the secretary at Fayette on October 6th.

Drs. Hume and Thompson presented a very interesting case of amyloid degeneration of the liver and kidney in a boy five years of age.

Dr. Smith reported Dr. C. H. Lee's condition much improved. Dr. Lee was infected while operating on a case of gangrene several weeks ago.

Dr. Watts reported the convalescence of the patient whose left kidney was removed on September 4th on account of a tuberculous infection of that organ.

The Hon. John A. Wood was present at the meeting and addressed the members on the relation of the doctor to the family and the duty of the state to doctors and the people. He said the legislature would enact such laws as would protect the health of the people and would give proper recognition to suggestions from the physicians of the state.

Dr. W. S. Thompson, of the state board of health, gave a brief synopsis of the work of that body and suggested certain changes in the present laws governing its work.

A general discussion by the members showed that they were alive to the necessity for certain changes and would support the measures advocated by the State Medical Association.

At the next meeting on November 2nd the Hon. S. C. Major, Mayor Davis, Drs. Burginn, Moore and Smith will read papers. It is expected that this will be one of the most enthusiastic meetings ever held.—C. W. Watts, M. D., Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

MEETING OF SEPTEMBER 11TH.

The Jackson County Medical Society held the first regular meeting of the season on Tuesday, September 11th. The Thirty-three members were present.

A communication under date of August 25th, from the Secretary of the Missouri State Board of Health, was read, calling the attention of the members of the State and County Societies to the necessity of adopting stringent measures tending toward the prosecution of various "quacks" and "irregulars" infesting the territory of our city and state; and stating further that the said board would willingly and as effectually as possible lend its support to whatsoever our County Society should undertake to do in regard to this matter.

After some remarks by various members this communication was received, and the secretary was requested to write to The Missouri State Board of Health in complaint of a Mr. C. H. Carson, who is claiming to practice medicine and who has not even a license to do so.

Dr. L. W. Luscher referring to the above communication stated that it was important to the medical profession and the public as well, that only such men be elected to our state legislature as would influence the best legislation regarding public health and similar measures, and he suggested that our society adopt resolutions asking the privilege of learning, through a committee, how candidates for the legislature stood on such questions. The Chair appointed on this committee Doctors: L. W. Luscher, S. Grover Burnett, and Robert O. Cross.

The Jackson County Medical Society endorsed Dr. N. A. Drake as a candidate for the Missouri State Legislature.

Another communication under date of August 24th, from the Secretary of the Missouri State Medical Association was read in which he informed the members of the County Medical Society that the American Medical Association having in view an increase of membership of the various local societies recommended to the state associations that all county medical societies in affiliation with the former accept the annual dues of new members prior to January, 1907 as payment of all dues to January, 1908, including subscription to the State Journal to January, 1908. Upon motion, this communication was received and the request agreed to.

Application for membership was received from Dr. John C. Sheldon and referred to the Board of Censors.

The chairman of committee on banquet reported favorable progress: the date for the occasion is Thursday, October 18th. A Motion prevailed that all arrangements for the banquet be left to the pleasure of the committee in charge.

The scientific program consisted of two papers, one by Dr. William Rice on "The Use of Apomorphine in Highly Nervous Conditions," the other by Dr. S. Grover Burnett entitled "Therapy of the Static Current." Both papers were entertaining, original, and instructive, and were well discussed by Drs. Franklin E. Murphy, Maggie L. McCrea, Scott P. Child, and Roger B. Brewster. Doctors Rice and Burnett closed the discussion.

MEETING OF SEPTEMBER 18TH.

The regular weekly meeting was held on Tuesday evening, September 18th. President E. H. Thrailkill, in the chair. Forty were in attendance at this meeting.

The application of A. E. O'Flaherty was received accompanied by letter stating that the applicant was at present practicing medicine and was therefore eligible for membership in the society and requesting that action upon his application be taken by the society at its earliest convenience. Ballot was spread, the membership committee having reported previously, and Dr. O'Flaherty was duly elected to membership.

The matter relative to the death of one of our highly respected members, Dr. M. P. Sexton, was referred to the necrological committee.

The president, who had attended a recent meeting of the State Board of Health and Committee on Public Health and Legislation in St. Louis, presented a brief report of the proceedings of that meeting. Upon motion this was received.

The scientific program consisted of papers on "The Report of a Case Demonstrating a Difficulty in the Diagnosis of Early Pregnancy" by Dr. C. Lester Hall; and a paper on "The Effect of Lead Poisoning on the Blood" by Dr. Frank J. Hall.

Dr. C. Lester Hall's report was very valuable because of its practical character, presenting, in a striking manner, points which the general practitioner is likely to encounter at any time.

Dr. Herman E. Pearse in opening the discussion emphasized his opinion in regard to the diagnosis of pregnancy in difficult cases by relating several instances wherein it becomes necessary to perform laparotomy: He stated that when one was in doubt in cases of extreme difficulty, it is oftimes well to perform exploratory laparotomy. Others who entered into the discussion were Drs. A. E. Hertzler, Newton, McVey, C. B. Hardin, E. A. Burkhardt, H. B. McCall, E. M. Hetherington, F. H. Brunig, C. M. Fulton, Dr. Hall closed the discussion.

Dr. Frank J. Hall's consideration of the "Hematology of Lead Poisoning" was received with leasure and interest by all present. He stated that investigation along this line was very recent and had been carried on by leading pathologists of the country. The blood changes in this affection were very characteristic and related to the leucocytosis, hemoglobin test, normoblast count, and presence of granular basophilia. He stated that the microscopic examination of the blood was of special diagnostic value in sporadic cases. Dr. E. W. Schauffler, who has had a wide experience cases of lead poisoning, opened the discussion, stating among other things that the blood resembled that of anemia and chlorosis. Others taking part in the discussion were Drs. Franklin E. Murphy, F. H. Brunig, and John Punton. Dr. Frank Hall closed the discussion.

MEETING OF SEPTEMBER 25TH.

The Jackson County Medical Society held its regular weekly

meeting on Tuesday evening, September 25th. Thirty were in attendance at this meeting. Applications for membership were received from Drs O. L. McKillip, Roger Brewster, and O. P. Faires, and were referred to the Board of Censors. The application of Dr. John C. Sheldon was upon motion again referred to the Board of Censors.

The professional program consisted of the report by Dr. Herman E. Pearse of a case of "Gunshot Wound of the Abdomen With Several Perforations." This occurred in the case of a boy who was operated on two hours after the accident; operation was followed by recovery. The discussion was opened by Dr. B. C. Hyde in the absence of Dr. E. von Quast who arrived later in the evening. Others taking part in the discussion were: Drs. C. Lester Hall, William J. Frick, E. von Quast, C. M. Fulton, J. W. Kyger, F. H. Brunig, and Maggie L. McCrea. Dr. Pearse closed the discussion.

No further business appearing, the Society adjourned until October 9th—no meeting to be held during the week of the fall festivities. —MAX GOLDMAN, M. D., Secretary.

LIVINGSTON COUNTY MEDICAL SOCIETY.

The October meeting was held at Chillicothe on the 17th, a large number of the members being present.

Visiting physicians from Kansas City and St. Louis read papers and a number of clinical cases were presented for discussion. Dr. Geo. W. Groves, of Kansas City, read a paper on "Eye and Ear Complications in Bell's Palsy." Dr. J. M. Frankenburger, of Kansas City, read a paper on the "Surgery of Carcinoma of the Rectum." Dr. A. W. McArthur, of Kansas City, contributed a paper on the subject of "Fracture of the Shaft of the Femur." Dr. Emory Lamphear, of St. Louis, presented a paper on anesthetics.

This was one of the most interesting meetings in the history of the society. The next meeting will be in January, 1907. W. M. GIRDNER, M. D., Secretary.

MISSISSIPPI COUNTY MEDICAL SOCIETY.

MEETING OF SEPTEMBER, 3rd.

The society met in regular session Monday, September 3rd. Drs. F. L. Finley and F. S. Vernon were elected to membership.

The resolution adoted by the Excutive Committee of the Judicial Council of the State Association relative to dues of new members for the year 1906-1907 was voted on and passed by the society.

The following cases were reported and discussed—Purpura haemorrhagica; coxalgia, pulmonary tuberculosis, by Dr. A. W. Chapman.—Hysteria, simulating rabies in a ten year old boy, by Dr. A. J. MARTEN.

MEETING OF OCTOBER 1ST.

The Mississippi County Medical Society met in open session on this date at the county court-house. Dr. W. F. Kuhn, superintendent State Hospital No. 4, Farmington, delivered the address of the evening. His subject "Why Some People Go Insane" was well received by the mixed audience. Dr. Kuhn is an able and forceful speaker, and had his subject well in command. His address was very practical one and based upon his long experience with the insane, and his plea for more humane and scientific treatment of these unfortunates should bear fruit. The society adopted the following resolution:

Resolved.—That the Mississippi County Medical Society extend to Dr. Kuhn its appreciation and thanks for his kindness in accepting their invitation to address the society.

The next meeting will be devoted to the discussion of "Pneumonia."—R. K. OGILVIE, M. D., Secretary.

MONITEAU COUNTY MEDICAL SOCIETY.

The regular quarterly meeting was held at Latham on October 11th.

The district Councillor, Dr. W. S. Allee, of Olean, was present and made a talk on "Fees and Fee Bills." His remarks were highly appreciated and freely discussed by the members.

A paper entitled "The Physician and the Association as seen by the Country Doctor" was read by Dr. J. B. Norman. After an enthusiastic discussion the secretary was ordered by motion of the society to send Dr. Norman's paper to the State Journal with the urgent request that the paper be published.

The next meeting will convene on December 13th at California.—W. R. PATTERSON, M. D., Reporter.

[Dr. Norman's paper will be published in the JOURNAL at the earliest possible date. Ed.]

NEW MADRID MEDICAL SOCIETY.

The regular meeting was held on October 4th at Marston. None of the members had prepared a paper for the occasion and the meeting was devoted to a general discussion of complications of and following labor.

The next meeting will be held at New Madrid on December 6th. At this meeting the officers for the next year will be elected.—W. J. SPARHAWK, M. D., Reporter.

RALLS COUNTY MEDICAL SOCIETY.

The Ralls County Medical Society met in regular session at Ilano on October 11th. The scientific program consisted of a symposium on typhoid fever, the contributions being furnished by Drs. Baskett, Walter, Waters and Hendrix.

This being the annual meeting the following officers were elected for the year 1907:—President, Fred Walter, Perry; vice-president, W. T. Hendrix, New London; secretary and treasurer, T. J. Downing, New London; delegate for two years, W. T. Waters, New London.—T. J. Downing, M. D., Secretary.

ST. GENEVIEVE COUNTY MEDICAL SOCIETY.

The regular monthly meeting was held on October 10th. The entire evening was devoted to the report of cases and presentation of patients and specimens. The evening proved most interesting to all the members and a general discussion of the cases followed.

The next meeting will be held on the second Wednesday of November.—R. W. Lanning, M. D., Reporter.

SCHUYLER COUNTY MEDICAL SOCIETY.

Schuyler County Medical Society met in regular session on October 23rd. On account of bad weather a number of members were prevented from attending this meeting. No papers were read but the evening was very profitably spent in discussing cases reported by those present.

The next meeting will be held at Lancaster on April 17, 1907.—H. E. Gerwig, Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

Regular meeting was held at Shelbina on September 18th. There was a good attendance of the members.

After a general discussion as to whether physicians should make a charge for advice and prescriptions given over the telephone, it was unanimously decided that the members should make a charge in those cases where the advice or the prescription made a regular visit unnecessary.

Doctors Daniels, Willis and Hanger were elected to membership.

Dr. Carson reported a case of arterial thrombosis.

At the October meeting the program will include a symposium on typhoid fever.—A. M. Wood, M. D., Reporter.

VERNON COUNTY MEDICAL SOCIETY.

A called meeting was held at Nevada on October 4th. Dr. Helm, state organizer, was present and made a short talk on the importance of frequent meetings.

In future we shall meet monthly instead of quarterly. Drs. Wield Talbot, J. M. Yater, C. L. Kiethly and J. W. Van Blaricum were appointed to read papers at the next meeting. Dr. I. W. Ammerman, of Nevada, was elected to membership.

The next meeting will be held at Nevada on November 1st.—T. B. Todd, M. D., Secretary.

JOHN T. HODGEN DISTRICT MEDICAL SOCIETY OF NORTHWEST MISSOURI.

At the meeting on September 10th the following officers were elected: President, A. H. Vandivert, Bethany; vice-president, J. C. Quinn, Clarksdale, secretary, A. C. Long, Denver; treasurer; J. W. Quinn, Clarksdale; secretary, A. C. Long, Denver; treasurer, J. W. Conard, Albany, censors; Geo. Smith, J. K. Phipps and J. M. Yeater. Drs. McKinley, Whitely and Conard were appointed a committee to draft a constitution and by-laws. Meetings will be held quarterly.

The next meeting will be held at Albany, November 13th.